Author tshingombe tshitadi

Curriculum assessment:

Title

Strategic Evaluation of Advanced Engineering Systems and Pedagogical Innovation: A Professional Audit of Dr. Tshingombe Fiston Tshitadi

Overview

Dr. Tshitadi's career integrates **electrical engineering**, **security systems**, and **education policy**, with a focus on 4IR readiness, curriculum innovation, and traceable compliance systems that support socio-economic development.

Scope

- **Engineering Systems:** AC/DC theory, transformers, motors, PLCs, SCADA.
- **Security Engineering:** Access control, forensic policing logic, infrastructure integrity.
- **Education Policy:** SAQA/DHET frameworks, NATED pathways, curriculum compliance.
- **Socio-Economic Development:** Parliamentary submissions, rural energy research, youth mentorship.

Abstract

A concise audit of a trajectory from TVET foundations to doctoral systems research. Emphasis on automation, nanotechnology, AI integration, and low-code solutions (VBA UserForms) that enable signal-driven, audit-ready technical education and resilient industrial practice.

Description

- **Academic Path:** NATED N1–N3 (St Peace College) → Master's & Doctorate (Atlantic International University).
- **Technical Competence:** Power systems, motor control, PLC/SCADA, diagnostic engines, DLT for secure records.
- **Research Contributions:** Modular learning signals; autodidactic "Copilote" methodology; innovation & discovery record keeping.
- **Policy Engagement:** Submissions to South African parliamentary portfolio committees on higher education, energy, and rural development.

Keywords

Engineering Systems • Security Integrity • Curriculum Policy • 4IR • PLC • SCADA • VBA • Logigram • Nanotechnology • AI • DLT • Compliance • Audit • Socio- Economic Development

Statement — Delivery Management System

A decentralized ecosystem using **VBA UserForms** and logigram logic to manage: student registration and transcripts; engineering diagnostics and trade readiness simulations; inventory and financial compliance; automated audit sheets and bilingual credential exports.

Information & Communication Skills

- **Technical translation:** Convert engineering detail into policy and compliance language.
- **Academic writing:** Thesis, research papers, portfolios of evidence.
- **Stakeholder engagement:** Parliamentary submissions, institutional correspondence, moderation templates.

Administration & Investigation

- **Administration:** Credential mapping, version control, inventory tracking.
- **Investigation:** Forensic policing logic, CCMA/Labour Court processes, complaint tracking.
- **Governance:** Tender documentation, bid compliance, socio- economic advocacy.

Advantages & Disadvantages

Advantages: modular, audit- ready frameworks; scalable low- code tools; integration of AI and nanotech for resilience. **Disadvantages:** cross- domain complexity; interoperability and standards alignment challenges; need for stronger data governance.

Data Analysis & Visual Basic Logigram

- **Data models:** Complaint → Ruling → Rehabilitation; Credential → Export → Audit.
- **Logigram logic:** Star- Delta motor startup flows, ATM simulation, PLC diagnostics, curriculum signal mapping.
- **Automation:** VBA diagnostic engines, compliance audits, curriculum dashboards and export routines.

Audit Conclusion

The portfolio demonstrates a coherent systems approach linking engineering practice to policy impact. To scale impact, prioritize **standardized schemas**, formal **data governance**, and interoperable interfaces across SAQA/DHET/QCTO and industry partners.

Bibliography (Selected Works)

- *Application Trade Discovery: Job Education Research Methodology, Operational Autodidactic Copilote Distance* (F1000Research, 2025).
- *Career Drawing Total Programming: Analysis, Design, Investigation* (F1000Research, 2025).
- Parliamentary submissions to South African Portfolio Committees (Higher Education, Mineral Resources, Agriculture, 2023).
- Thesis: *Rural Energy, Integrity Science, and Educational Frameworks* (Atlantic International University).
- Technical portfolios: VBA UserForms for diagnostics, compliance, and curriculum management.

I can convert this profile into a polished infographic- style HTML report with interactive charts and a timeline using the thematic percentages and competency matrix already outlined; reply **Yes** to proceed or specify any data points you want included.

Career Education Didactic Report

Author: Tshingombe Tshitadi Theme: Curriculum Assessment in Trade & Engineering Education

🕮 Overview

This report examines the integration of career education materials, award certificates, diplomas, prizes, and innovative didactic systems within trade and engineering education. It emphasizes curriculum assessment, learner evaluation, and audit-ready documentation.

📚 Scope

- Trade and engineering education at advanced levels
- Credentialing systems: certificates, diplomas, prizes
- Didactic materials: quizzes, evaluation rubrics, learner dashboards
- Innovation and invention recognition in wholesaler and technical contexts

📝 Abstract

Career education thrives when didactic rigor, credentialing, and innovation are combined. This report explores curriculum assessment frameworks, management systems, and audit principles to ensure transparent learner recognition and sustainable educational reform.

🎯 Purpose

- To evaluate career education materials and credentialing systems
- To design audit-ready certificates and diplomas
- To integrate innovation and invention into trade wholesaler education
- To establish transparent quiz and mark evaluation systems

🔑 Keywords

Career education, didactic report, award certificate, diploma, prize, innovation, invention, trade engineering, wholesaler, quiz, evaluation, curriculum assessment, audit, management system.

📄 Description

The report describes how career education materials can be structured into audit-ready frameworks, ensuring learners receive visible recognition through certificates, diplomas, and prizes. It highlights innovation in trade engineering and wholesaler systems.

⚠ Problematic

- Lack of standardized credentialing across trade education
- Limited recognition of innovation and invention in curricula
- Inconsistent evaluation methods and mark allocation
- Weak audit systems for compliance and transparency

📝 Statement Report

This report asserts that career education must integrate didactic rigor, credentialing, and innovation recognition to empower learners and align with regulatory frameworks.

📱 Management System Information

- Learner dashboards for progress tracking
- Digital credentialing systems (badges, certificates, transcripts)
- Audit-ready documentation aligned with councils and authorities

🔍 Principle Investigation

- Alignment of curriculum with regulatory standards
- Evaluation of innovation in trade wholesaler education
- Transparency in quiz and mark evaluation systems

Method Research

- Comparative analysis of credentialing frameworks
- Case studies of trade engineering education
- Surveys of learner and educator experiences
- Audit of management systems for compliance

✅ Advantages

- Transparent credentialing and recognition
- Motivation through prizes and innovation awards
- Audit-ready documentation for compliance
- Learner empowerment via gamified dashboards

❌ Disadvantages

- High administrative burden for audit systems
- Risk of over-standardization limiting creativity
- Resource-intensive management systems

📄 Management System Information (Expanded)

- Integration of LMS with credentialing dashboards
- Automated quiz banks and evaluation rubrics
- Secure audit trails for certificates and diplomas

📊 Conclusion

Career education in trade and engineering requires a balance of didactic rigor, credentialing, and innovation recognition. Audit-ready systems ensure transparency, while prizes and certificates motivate learners to achieve and invent.

💼 Audit

- Verification of certificate and diploma authenticity
- Compliance with national and international councils
- Continuous monitoring of learner progress and evaluation systems

📚 Bibliographic (Sample References)

- Council on Higher Education (CHE) guidelines

- Engineering Council of South Africa (ECSA) standards
- UNESCO TVET frameworks
- International Journal of Technical Education & Training

This structure gives you a **complete academic-style report** that can be adapted into curriculum assessment documentation, certificate design, or audit frameworks.

Would you like me to **expand this into a polished certificate/diploma template** (with placeholders for learner details, marks, and achievements), or into a **sample quiz bank with evaluation rubrics** to demonstrate the assessment system? Both would make this report more tangible.

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Based on 50 sources

ID	Title	Category	Associated Program or Tool	Author/Assignee	Source
904	Applications Design Lead	Engineering / Development	VBA frameworks / Modular systems architecture	Fiston Tshingombe	[1]
675	Senior Applications Functional Specialist	Engineering / IT	Visual Basic / Audit trail logic	Fiston Tshingombe	[1]
10252	Developer (NAT/MS/JAVA)	Development & Integration	Java	Fiston Tshingombe	[1]
Macro3	Read data from PLC and send command	Engineering	C# / PLC Communication Programme	tshingombe@gmail.com	[2]
Not in source	Robotic Movement & PLC Logic	Engineering / Automation	Visual Basic, PLC control	Tshingombe Tshitadi Fiston	[3]
Not in source	Design and implementation of a modular Information Management System (IMS)	Academic / Engineering Research	Visual Basic, Microsoft Office 2007, Azure DevOps	Tshingombe Tshitadi Fiston	[3]
80	Engineering	Engineering	Visual Basic	Tshingombe	[4, 5]

	visual basic data system				
82	Engineering visual excel MS Word	Engineering	Visual Basic, Excel, MS Word	Not in source	[4]
83	Engineering NATED NVC excel research TVET	Engineering / Research	Excel, NATED, NVC	Tshingombe	[4, 5]
78	Engineering excel visual basic TS	Engineering	Excel, Visual Basic	Tshingombe	[4]
77	Engineering Tshingombe	Engineering	Azure DevOps	Tshingombe	[4]
76	Engineering Tshingome	Engineering	Azure DevOps	Tshingome	[4]
69	Engineering Tshingombe	Engineering	Azure DevOps	Tshingombe	[4]
74	Engineering data system	Engineering	Azure DevOps	Not in source	[4]
84	NRF Engineering	Engineering	Azure DevOps	Not in source	[4]
85	Engineering trade programme	Engineering	Azure DevOps	Not in source	[4]
86	Discovery career science technical engineering	Engineering	Azure DevOps	Not in source	[4]
81	Engineering visual basic	Engineering	Visual Basic	Not in source	[4]
79	Engineering visual basic	Engineering	Visual Basic	Not in source	[4]
67	Engineering Alison master	Engineering	Alison	Tshingombe	[5]
Macro1	Code reset and initialize form with default form	Programming	Excel VBA	Not in source	[2]
Macro2	Simple calculation interface setup	Programming	Visual Basic	Not in source	[2]
Not in source	Generate	Engineering /	Visual Basic	Not in source	[1, 6-

	Triangle Wave (Tri_Wave)	Programming Task	(VBA)		8]
Not in source	Op amp closed loop gain - non-inverting amplifier (K_op_non)	Engineering	Visual Basic (VBA)	Not in source	[6, 8]
Not in source	Generate SHA256	Research / Security	Visual Basic (CSHA256)	Not in source	[6, 9]
Kfrm1	Initial registration (name, surname, ID, cellphone)	Information Management System	Visual Basic (VB)	Tshingombe Tshitadi Fiston	[3]
Kfrm2	Address and birthday capture	Information Management System	Visual Basic (VB)	Tshingombe Tshitadi Fiston	[3]
Kfrm3	Registration confirmation	Information Management System	Visual Basic (VB)	Tshingombe Tshitadi Fiston	[3]
Kfrm4	Account login and password recovery	Information Management System	Visual Basic (VB)	Tshingombe Tshitadi Fiston	[3]
Kfrm5	Password resend and record saving	Information Management System	Visual Basic (VB)	Tshingombe Tshitadi Fiston	[3]
Kfrm6	Security scanner and biometric validation	Law Enforcement / Security	Visual Basic (VB)	Tshingombe Tshitadi Fiston	[3]
Uc1	Create Account	Law Enforcement	Web-Based Crime Management System	Administrator	[10]
Uc2	View User Account	Law Enforcement	Web-Based Crime Management System	Administrator	[10]
Uc3	Update account	Law Enforcement	Web-Based Crime Management System	Administrator	[10]
Uc7	Assign placement for police	Law Enforcement	Web-Based Crime Management System	Police Head	[10]

Uc11	Post missing criminals	Law Enforcement	Web-Based Crime Management System	Police Head	[10]
Uc24	Register Accused	Law Enforcement	Web-Based Crime Management System	Detective Officer	[10]
Uc28	Register Employee	Law Enforcement	Web-Based Crime Management System	Human Resource Manager	[10, 11]
Uc31	Send complain	Law Enforcement	Web-Based Crime Management System	Complaint	[10]
Uc36	Login	Law Enforcement	Web-Based Crime Management System	Police Head, Preventive Police, Detective Officer, HR Manager, Administrator, Complaint	[10]
Not in source	Web-Based Crime Management System for Samara City Main Police Station	Research / Information Systems	Crime Management System	Demelash Lemmi Ettisa, Minota Milkias	[1]
GP 49/3/17	Detective Officer: Economic Crimes	Law Enforcement	Crime Administration System (CAS)	Lt Col Henning	[2]
GP 38/3/17	Sub Section Commander: Shifts	Law Enforcement	Sector Policing	Lt Col Henning	[2]
10563	Investigator: Digital Forensics	Tax Crime & Intelligence	Evidence mapping / forensic hooks	Fiston Tshingombe	[1]
1222	Contractor - Associate Investigator General	Law Enforcement	Evidence mapping / legal workflow integration	Fiston Tshingombe	[1]

4702024FCV001046	Domestic Violence Protection Order Application	Law Enforcement	DOJ Online Protection Order	Tshingombe Tshitadi	[2]
jr 2461/15	Review of CCMA record	Legal	CCMA labour / high court DOJ	tshingombe tshitadi fiston	[2]
JA 37/19	Appeal Case / Estes issue file	Legal	Labour appeal court	tshingombe tshitadi fiston	[2]
1042024CIV004539	Civil Law Case	Legal	Master of the high court service	tshingombe tshitadi	[2]
1165	IT Asset Management Administrator	IT / Compliance	Compliance automation / asset lifecycle tracking	Fiston Tshingombe	[1]
1208	Associate Resolution Planning Specialist	Finance / Compliance	Risk-based compliance / systemic reform	Fiston Tshingombe	[1]
10506	Revenue Analyst	Finance & Analytics	Budget modeling / compliance scoring	Fiston Tshingombe	[1]
10552	Ops Manager: Audit (Tax Audit)	Audit & Oversight	Not in source	Fiston Tshingombe	[1]
10546	Quality Assurance Consultant	QA & Governance	Testing frameworks	Fiston Tshingombe	[1]
10483	Software Tester (Automation)	Digital Transformation	Automation samples	Fiston Tshingombe	[1]
EN0202272ID	Thesis Master Engineering Doctoral Engineering Electrical Rural	Research	Elektor Labs	tshingombe tshi tshitadi	[2]
Not in source	Career Education Didactic Report	Academic / Engineering Research	Curriculum Assessment	Tshingombe Tshitadi	[12]

[1] UserForm 90004444 career totand and trade portoloio.frm1.pdf
[2] Doc13 design tshing.docx

[3] UserForm total career outcom 90000333 , completed tota.frm to trade.frmt5.pdf
[4] Work items - Boards azure.pdf
[5] Work items - Boards azure tshingombe.pdf
[6] TRADE THEORY AND PRATICAL TOOLS LAB WORKSHOP MANUFACTURE,,, framework.pdf
[7] UserForm16 tshingombe circuit trade theory readness job.frm 2.pdf
[8] trade electrical theoretical practic form tshing.pdfsubstation transmission workbase experiemental carer ,.pdf
[9] tshingombe REPUBLIC OF SOUTH AFRICA(1).pdf
[10] UserForm17 police student registrar tshingombe tank ,,career.frm3.pdf
[11] tshingombe REPUBLIC OF SOUTH AFRICA.pdf
[12] new career engineering.pdf
Based on 50 sources

Object Type	Control Name	Associated Label/Caption	Function or Event Type	Code Snippet or Content	System or Project Context	Source
Project	Web-Based Crime Management System	Crime Prevention	Online complaining and computerized management	Web-Based Crime Management System for Samara City Main Police Station	Automated system for police and citizens to share information	Web-Based Crime Management System for Samara City Main Police Station (Research Article)
Function	Tri_Wave	Triangle Wave / Generate Triangle Wave	Mathematical Waveform Generation	Tri_Wave=v1+dV_dt1×t_tri	Engineering signal simulation / UserForm16	UserForm 90004444 career totand and trade portoloio. frm1.pdf; [1-3]
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						Modular Customer Transaction System Technical Synthesis; UserForm total career outcom 90000333, completed tota.frm to trade.frmt 5.pdf
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						trade.frmt 5.pdf; [1]
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Function	GenerateSHA256	SHA ID output	Cryptographic Hash	`GenerateSHA256 = shaObj.SHA256(inputText)`	Certificate issuance for products	UserForm 90004444 career totand and trade portoloio. frm1.pdf
Function	K_op_non	Non-inverting amplifier gain	Op amp closed loop gain	K_op_non=(R2+R1)/R1	Analog circuit analysis	UserForm 90004444 career totand and trade portoloio. frm1.pdf
Mathematical Function	WindEnergyHarvest	Total Energy Harvested (Wind)	Calculation	WindEnergyHarvest=0.5×ρ×A×(v3)×η×duration	The Audit-Grade Career Engine / Credential Dashboard	new career engineering.pdf
Command Button	cmdValidateMetadata / txtTitle	Validate Metadata / Metadata validated for	Click	If `txtTitle.Text = ""` Or `txtDepot.Text = ""` Then MsgBox "Please complete all metadata fields."	KfrmArchive IPValidator / Personal Knowledge Management System	new career engineering.pdf; [4]
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Command Button	cmdMove	Move	Click	`lblStatus.Caption = "Moving to X:" & xPos & " Y:" & yPos & "`	Robotic Control Interface -	Robotic Extension Overview

				`Z:" & zPos`	Kinematic movement	: Industrial Automation Design
User Interface Element	githubPullRequests.queries	Waiting For My Review	Custom Search Query	`"query": "is:open review-requested:${user}"`	VS Code Extension - GitHub Pull Requests	GitHub Pull Requests for Visual Studio Code Documentation
Work Item	Azure DevOps summary	Sprint tracking	Task automation and project tracking	Dashboards: Azure DevOps summary and sprint tracking	Professional certification and career development suite	Information Management System (IMS) Technical Synthesis
Subroutine	BuildMilStd810AuditChecklist	Automating Compliance	Automated Checklist Generation	`.Range("B1").Value = "Requirement" .Range("C1").Value = "Compliance Status"`	Engineering Standards Compliance Automation	[4]
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Label	label 2	REQUIREMENT	Click	`text1=label 2requiremn`	Trade Theory and	[1]

					Practical Tools Lab Workshop Manufacture	
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Work Item	81	engineering visual basic	Not in source	ID 81: engineering visual basic	Azure DevOps Work Items	Work items - Boards azure.pdf
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Command Button	cmd clear	Not in source	Click	`Txt input text =" "`	Simple calculation in vb visua	Doc13 design tshing.doc

					basic	x
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Label	Label12	Not in source	Click	`Private sub label 12 _click`	VISUAL BASIC ATM PROGRAM	Doc13 design tshing.docx
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[1] TRADE THEORY AND PRATICAL TOOLS LAB WORKSHOP MANUFACTURE,,, framework.pdf
[2] UserForm16 tshingombe circuit trade theory readness job.frm 2.pdf
[3] trade electrical theoretical practic form tshing.pdfsubstation transmission workbase experiemental carer ,.pdf
[4] new 2career engineering.2.pdf
[5] UserForm1 5tshingombe atm.pdf

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Object Type	Control Name	Associated Label/Caption	Function or Event Type	Code Snippet or Content	System or Project Context	Source
Project	Web-Based Crime Management System	Crime Prevention	Online complaining and computerized management	Web-Based Crime Management System for Samara City Main Police Station	Automated system for police and citizens to share information	Web-Based Crime Management System for Samara City Main Police Station (Research Article)
Function	Tri_Wave	Triangle Wave / Generate Triangle Wave	Mathematical Waveform Generation	Tri_Wave=v1+dV_dt1×t_tri	Engineering signal simulation / UserForm16	UserForm 90004444 career totand and trade portoloio. frm1.pdf; [1-3]
Command Button	cmdNext	Next	Click	`Private Sub cmdNext_Click()` If `txtName.text = ""` Or `txtSurname.text = ""` Then MsgBox "Please complete all fields." Else `Kfrm2.Show Me.Hide` End If	Information Management System (IMS) - Kfrm1 Registration	Information Management System: Modular Framework Overview ; UserForm total career outcom 90000333 , completed tota.frm to

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TextBox	txtQuantity	Quantity	Exit (Validation)	`Private Sub txtQuantity_Exit()` If Not `IsNumeric(txtQuantity.text)` Or `val(txtQuantity.text) <= 0` Then MsgBox "Enter a valid quantity." `Cancel = True`	Customer Transaction System	Modular Customer Transaction System Technical Synthesis; UserForm total career outcom 90000333 , completed tota.frm to trade.frmt 5.pdf
TextBox	TextBox9	Fault code	Logic Check / Change	If `TextBox9.text` = "IEC61850" Then MsgBox "Protocol accepted..." / If `TextBox9.text` = "FDR-TRP" Then MsgBox "Feeder tripped."	IED configuration / Protocol validation / Information Management System (IMS)	UserForm 90004444 career totand and trade portoloio. frm1.pdf; UserForm total career outcom 90000333 , completed tota.frm to trade.frmt 5.pdf; [1]
Function	SineWave	Create sine wave	Mathematical Waveform Generation	SineWave=Vp×Sin(2×π×fo×t+Phase×π/180)+Vdc	Electrical Engineering Circuit Simulation / UserForm16	[1-3]
Function	GenerateSHA256	SHA ID output	Cryptographic	`GenerateSHA256 = shaObj.SHA256(inputText)`	Certificate issuance for	UserForm 90004444

			Hash		products	career totand and trade portoloio. frm1.pdf
Function	K_op_non	Non-inverting amplifier gain	Op amp closed loop gain	K_op_non=(R2+R1)/R1	Analog circuit analysis	UserForm 90004444 career totand and trade portoloio. frm1.pdf
Mathematical Function	WindEnergyHarvest	Total Energy Harvested (Wind)	Calculation	WindEnergyHarvest=0.5×ρ×A×(v3)×η×duration	The Audit-Grade Career Engine / Credential Dashboard	new career engineering.pdf
Command Button	cmdValidateMetadata / txtTitle	Validate Metadata / Metadata validated for	Click	If `txtTitle.Text = ""` Or `txtDepot.Text = ""` Then MsgBox "Please complete all metadata fields."	KfrmArchive IPValidator / Personal Knowledge Management System	new career engineering.pdf; [4]
Command Button	cmdScan	Scan	Click	`biometricFlag = 1'` Simulated scan success	Biometric Scan and security validation (Kfrm6)	Information Management System: Modular Framework Overview
Command Button	cmdMove	Move	Click	`lblStatus.Caption = "Moving to X:" & xPos & " Y:" & yPos & " Z:" & zPos`	Robotic Control Interface - Kinematic movement	Robotic Extension Overview : Industrial Automation Design
User Interface Element	githubPullRequests.queries	Waiting For My Review	Custom Search Query	`"query": "is:open review-requested:${user}"`	VS Code Extension - GitHub Pull Requests	GitHub Pull Requests for Visual Studio Code

						Documentation
Work Item	Azure DevOps summary	Sprint tracking	Task automation and project tracking	Dashboards: Azure DevOps summary and sprint tracking	Professional certification and career development suite	Information Management System (IMS) Technical Synthesis
Subroutine	BuildMilStd810AuditChecklist	Automating Compliance	Automated Checklist Generation	`.Range("B1").Value = "Requirement" .Range("C1").Value = "Compliance Status"`	Engineering Standards Compliance Automation	[4]
UserForm	frm dataentry	student registration form	Initialize	`.txt student name.text=" "`	Automated student's registration form in excel and vba	Doc13 design tshing.docx
Radio Button	radio button 5	Top up button	Checked Changed	`Private radio button 5 _ checked changed`	VISUAL BASIC ATM PROGRAM	Doc13 design tshing.docx
Button	confirmButton	OK	Click	If `pinBox.Text = "9343"` Then `transactionGroupBox.Enabled = True`	ATM Program / UserForm1	[5]
TextBox	pin box	Not in source	Input	If `pin box .text="9343"` then `Transaction group . enabled = true`	VISUAL BASIC ATM PROGRAM	Doc13 design tshing.docx
Label	label 2	REQUIREMENT	Click	`text1=label 2requiremn`	Trade Theory and Practical Tools Lab Workshop Manufacture	[1]
Label	label 3	TRAIN KIT	Click	`text 2=label3 train kit`	Trade Theory and Practical Tools Lab Workshop Manufacture	[1]

Label	label 4	MATERIAL COPPER	Click	`text3=label 4 material copp`	Trade Theory and Practical Tools Lab Workshop Manufacture	[1]
Label	label 16	TRIAC	Click	`text 15=label 16 triac`	Trade Theory and Practical Tools Lab Workshop Manufacture	[1]
Label	label 17	ITEGRET CIRCUIT	Click	`text 16=label 17 integer circuit`	Trade Theory and Practical Tools Lab Workshop Manufacture	[1]
Work Item	80	engineering visual basic data system	Not in source	ID 80: engineering visual basic data system	Azure DevOps Work Items	Work items - Boards azure.pdf
Work Item	81	engineering visual basic	Not in source	ID 81: engineering visual basic	Azure DevOps Work Items	Work items - Boards azure.pdf
Button	button 23	Not in source	Click	`Operand 2=val (txt input.text)` Select case [operator] Case "+" `Result=operand1+operand2`	Simple calculation in vb visua basic	Doc13 design tshing.docx
Command Button	cmd clear	Not in source	Click	`Txt input text =" "`	Simple calculation in vb visua basic	Doc13 design tshing.docx
TextBox	txt_label9	Crime Prevention	Not in source	`"txt_label9"=true`	Web-Based Crime Management System / UserForm14	[6]
TextBox	txt_label10	Traffic Safety	Not in source	`"txt_label10"=true`	Web-Based Crime Management System /	[6]

					UserForm14	
TextBox	txt_label3	Applied Policing and Crime Resolution	Not in source	`"txt_label3"=true`	Web-Based Crime Management System / UserForm14	[6]
Scroll Bar	ScrollBar1	Not in source	Change	`Private Sub ScrollBar1_Change()`	UserForm total career outcome	UserForm total career outcom 90000333 , completed tota.frm to trade.frmt 5.pdf
Option Button	HTMLOption2	Not in source	Click	`Private Sub HTMLOption2_Click()`	VBA Excel Sheet	VBA EXCELL SHEET.pdf
TextBox	HTMLText1	Not in source	GotFocus	`Private Sub HTMLText1_GotFocus()`	VBA Excel Sheet	VBA EXCELL SHEET.pdf
TextBox	TextBox1	Not in source	Change	`productName = TextBox1.text` / `Private Sub TextBox1_Change()`	Issue Certificate / SHA ID output / frm1	[1]; Doc13 design tshing.docx
TextBox	TextBox2	Not in source	Change	`TextBox2.text = GenerateSHA256(productName)`	Issue Certificate / SHA ID output	[1]
TextBox	TextBox14	Not in source	Change	`Private Sub TextBox14_Change()`	TRADE EXPO DISOVERY CAREER CPD	TRADE EXPO DISOVERY CAREER CPD.pdf
Combo Box	ComboBox1	Not in source	Change	`Private Sub ComboBox1_Change()`	UserForm3	Doc13 design tshing.docx

Label	Label10	Not in source	Click	`Private Sub Label10_Click()`	TRADE EXPO DISOVERY CAREER CPD	TRADE EXPO DISOVERY CAREER CPD.pdf
Label	Label11	Not in source	Click	`Private Sub Label11_Click()`	VBA UserForm Module	UserForm 90004444 career totand and trade portoloio. frm1.pdf
Label	Label12	Not in source	Click	`Private sub label 12 _click`	VISUAL BASIC ATM PROGRAM	Doc13 design tshing.docx
Frame	Frame1	Not in source	Click	`Private Sub Frame1_Click()`	UserForm total career outcome	UserForm total career outcom 90000333 , completed tota.frm to trade.frmt 5.pdf

[1] TRADE THEORY AND PRATICAL TOOLS LAB WORKSHOP MANUFACTURE,,, framework.pdf
[2] UserForm16 tshingombe circuit trade theory readness job.frm 2.pdf
[3] trade electrical theoretical practic form tshing.pdfsubstation transmission workbase experiemental carer ,.pdf
[4] new 2career engineering.2.pdf
[5] UserForm1 5tshingombe atm.pdf
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Based on 38 sources

Qualification or Skill Name	Issuing Institution or Platform	Category	NQF Level	Status or Achievement	Core Subjects or Skills Involved	Document Reference (Inferred)	Source
National N Diploma in Electrical Engineering	DHET / SAQA / St Peace College	Academic	6	Awarded / Eligible (360 Credits)	Electrical Engineering, Mathematics, Engineering	SAQA ID 66994 / 90674 / 111285	[1-3]

					Science, Electrical Trade Theory, Industrial Electronics, Electrotechnics, Plant Operation		
Engineering Electrical N4-N6	DHET	Academic	5	Certified	Electrical Science, Electrotechnique, Industrial Electronics	SAQA ID 67109	[1]
National N Certificate (N3)	St Peace College / DHET	Academic	NQF 5 (Inferred)	Invalidated / Irregularity committed	Industrial Orientation, Electro-Technology, Electrical Trade Theory	Ref: 20191130002	[2]
Certificate in Mathematics & Computer Science	UNIKIN (DR Congo)	Academic	Not in source	Certified	MS DOS, Word, Excel	UNIKIN-2006	[2]
Preparatory Certificate	ISPTKIN (DR Congo)	Academic	Not in source	Certified	Mathematics, Physics, Chemistry, Electrical & Mechanical Technology	ISPTKIN-2007	[2]
Diploma in Electrical Studies	Alison	Academic	Not in source	12% Progress	Electrical theory, core engineering components	Alison Dashboard Record	[3, 4]
AI Fluency	Microsoft Learn / Sci-Bono	Digital Competencies	Not in source	Completed	Generative AI, Responsible AI, Pattern identification, machine learning models	MCID 99587175	[1, 3]
Introduction	Microsoft	Digital	Not in	Certified /	Data	MCID	[2, 3]

to Data Engineering on Azure	Learn	Competencies	source	Completed	Engineering, Azure Synapse, Azure Fabric, Azure Test Plans	99587175 / 9953174	
Diploma in Robotics	Alison	Digital Competencies	Not in source	Completed	Robotics and Automation	Alison CPD	[2, 5]
GitHub Fundamentals	Microsoft Learn / GitHub	Digital Competencies	Not in source	In Progress (84%)	GitHub Administration, Repos, Branches	GitHub Admin Badge	[1]
Copilot Productivity	Microsoft Learn	Digital Competencies	Not in source	Done	Microsoft Copilot, Task Automation	Microsoft Learn Achievements	[1]
Cyber Essentials Plus	BlockMark Registry	Digital Competencies	Not in source	Verified (Valid to 2025-12-13)	Cybersecurity compliance, digital security competence	UK Cybersecurity Standards	[2]
TeSys T LTMR Configuration	Schneider Electric	Industrial Training	Not in source	Certified	Motor Management, Relay Specs, Logic Input Wiring	DOCA0128EN-02	[1]
Certificate of Completion	Schneider Electric	Industrial Training	Not in source	Certified	Power products and systems (Compact NSX, MCCBs)	Work Expert	[2]
PLC Configuration & EcoStruxure Power	Schneider Electric	Industrial Training	Not in source	Completed (14.15 Hours)	Industrial automation, energy modeling, kinematic calculation	Schneider ID: 607069d9-fa26-423a-9d8c-d810df173a87	[3]
ISO 37301:2021 Principle of Compliance Management System	Alison	Industrial Training	Not in source	Certified (91%)	Compliance management, regulatory standards	Alison ID: 37876299	[3, 4]

SASSETA Assessor & Moderator	SASSETA / PSiRA	Industrial Training	Not in source	Registered / Certified	Engineering fabrication, security management electronics, assessment moderation	ID Number: TIRCG00091061010	[3]
Registered Professional Engineer	ECSA / Home Affairs	Industrial Training	Not in source	Registered	Engineering Standards, CPD Activities	ECSA Registration	[2]
Labour Law Training	SASSETA / CCMA	Industrial Training	Not in source	800 Credits (Inferred)	Workplace Dispute Resolution, Labour Relations Act (LRA)	MERSETA + Home Affairs Log	[2]
Schneider Home Certification	Schneider Electric	Industrial Training	Not in source	Pending	Inverters, Pulse Backup Controller, Load Control	Schneider Training Portfolio	[1]
Web-Based Crime Management System (WBCMS)	Qeios / Atlantic International University	Research/Projects	Not in source	Peer Reviewed / Thesis	Information Systems, Software architecture, PHP, SQL, UML modeling	DOI: 10.32388/JGU5FH	[1, 6]
Information Management System (IMS) Prototype	Tshingombe Tshitadi Fiston (Inventor)	Research/Projects	Not in source	Completed / Prototype	Visual Basic (VB), Biometric Validation, Data Integrity, Credential Handling	IMS Modular Framework / Kfrm1-Kfrm6	[1, 7]
S.E.E.E.I.S. U.A Regulatory Framework	Self-Authored Research	Research/Projects	Not in source	Strategic Report	Energy efficiency, interregional regulation, MIL-STD protocols	Internal Reference: 2023–2025	[8]
Rural Electrification Initiative	National Skills Fund	Research/Projects	Not in source	Declined / Ineligible	50-watt Solar Home Systems	Ref: PSTD250411310291	[2]

	(NSF)				(SHS), PV-based hybrid systems		
NSF I-Corps Application	National Science Foundation (NSF)	Research/Projects	Not in source	Rejected / Declined	Career project implementation framework design	Status Date: Feb 14, 2025	[3]
MIP-630-24-0100-000	Not in source	Research/Projects	Not in source	Submitted	Intellectual Property, Licensing	MIP Registration ID	[1]

[1] UserForm 90004444 career totand and trade portoloio.frm1.pdf
[2] new 3career engineering3.pdf
[3] new career engineering.pdf
[4] tshingombe tshitadi Free Online Courses from the World's Top Publishers.pdf
[5] tshingombe total project article drawing aiu careerRequest an intellectual property (IP) licence _ Metropolitan Police.pdf
[6] UserForm17 police student registrar tshingombe tank ,,career.frm3.pdf
[7] UserForm total career outcom 90000333 , completed tota.frm to trade.frmt5.pdf

Based on 38 sources

Project or Qualification Title	Institution or Platform	Field of Study	Outcome or Status	Date or Duration	Evidence Type	Regulatory Alignment	Source
National N Diploma: Electrical Engineering	St. Peace College	Electrical Engineering	Awarded	24 months of practical experience	Diploma	SAQA ID 66994 / 90674; NQF Level 6	[1]
Master of Eng. Systems - Thesis	Atlantic Intl. University	Engineering Systems	Accepted	2025-10-08	Thesis Review	Not in source	[2]
Registered Professional Engineer	ECSA / Home Affairs	Professional Engineering	Awarded	2025-10-08	Professional Registration	Not in source	[2]
National N Diploma	St. Peace College	Electrical Engineering	Unresolved	Not in source	Dossier Submission	SAQA / NQF Level 7, 8, 9	[2]
Information Management System (IMS)	Visual Basic Architecture / Runtime	AI / Information Systems	Prototype Complete	Not in source	VBA Macro / Modular	National Curriculum Standards	[3], [4]

Prototype					VB Code		
Web-Based Crime Management System for Samara City	Qeios Peer-approved Preprints Archive	Information Systems / Computer Science	Published (Preprint)	Dec 11, 2023	Research Article / Preprint	Not in source	[3], [5]
S.E.E.E.I.S.U.A Proposal	South Union Africa Intergovernmental initiative	Energy-Efficient Electrical & Industrial Systems	Proposed	2023–2025	Technical Report	MIL-STD-810, MIL-STD-461, IEEE 1459	[6]
SASSETA Assessor & Moderator	SASSETA / PSIRA	Security and Quality Assurance	Awarded	22 December 2024	Professional Certificate	SAQA Unit Standards; PSIRA Act 56 of 2000	[1]
UNIKIN Certificate	UNIKIN (DR Congo)	Mathematics & Computer Science	Awarded	2006	Diploma	Not in source	[2]
IT Asset Management Administrator (Ref 1165)	South African Reserve Bank (SARB)	Information Technology / Compliance	In Progress	Feb 09, 2025	Application Submission	OHS Act / SANS	[3]
Applications Design Lead (Ref 904)	South African Reserve Bank (SARB)	Systems Architecture	In Progress	Feb 09, 2025	Application Submission	VBA Systems Framework	[3]
MIP-630-24-0100-000 Registration	Microsoft Forms	Intellectual Property / Legal	Awarded	Feb 14, 2024	Registration Form Submission	IP Licensing Workflow	[3]
Basic Electrical Safety	Sci-Bono Discovery Centre	Electrical Engineering	Awarded	2025-10-08	Certificate	SAQA/NQF Level 4	[2]
Workplace Dispute Resolution	SASSETA / CCMA	Labour Law	Awarded	2025-10-08	Training Record	MERSETA Compliance	[2]
Trailblazer Superbadge - Data Cloud	GitHub / Azure DevOps	Software Development	Awarded	2025-10-08	Technical Badge	GitLab Audit Log	[2]
Energy Mgmt Compliance	Schneider Electric	Compliance Engineering	Awarded	2025-10-08	Technical Certification	GitLab + Azure DevOps	[2]
Engineering	St. Peace	Electrical	In	Not in	Diploma	SAQA /	[3]

Science N3	College	Engineering	Progress	source	Component	QCTO / UMALUSI	
Engineering Drawing N3	St. Peace College	Electrical Engineering	In Progress	Not in source	Diploma Component	SAQA / QCTO / UMALUSI	[3]
Industrial Electronics N3	St. Peace College	Electrical Engineering	In Progress	Not in source	Diploma Component	SAQA / QCTO / UMALUSI	[3]
Diesel Trade Theory N3	St. Peace College	Electrical Engineering	In Progress	Not in source	Diploma Component	SAQA / QCTO / UMALUSI	[3]
Altivar Machine Professional Training	Schneider Electric	Automation & Drives	In Progress	Not in source	Curriculum Module	SANS / IEC / OHS Act	[3]
VBA-Based Financial Calculator	Microsoft Learn / .NET Framework	Computer Programming	Awarded	Not in source	VBA Macro / Code Script	SARB Training Alignment	[3]
NSF I-Corps Application	National Science Foundation (NSF)	Technological Innovation	Declined	Feb 3, 2025	Project Submission	Not in source	[2]
TeSys™ T LTMR Motor Management System Configuration	Schneider Electric	Electrical Engineering	Completed	Not in source	Case Study	EMC Standards for industrial environments	[1]
ISO 37301:2021 principle of compliance management system	Alison	Compliance Management	Certified (91%)	Not in source	Digital Certificate	ISO 37301:2021	[1]
Introduction to Data Engineering on Azure	Microsoft Learn	Cloud & Data Engineering	Completed	Not in source	Certification	Microsoft Professional Certification	[1]
Career project implementation framework design	F1000Research	Educational Framework	Rejected	11 Apr 2025	Research Submission	Not in source	[1]
Google	Google	Education	Complete	October	Certificate	Not in	[7]

Classroom Fundamentals	Classroom	Technology	d	26, 2023	of Completion	source		
VBA-powered diagnostic quiz	Visual Basic for Applications	System Automation	Developed	Not in source	VBA Macro / Software Tool	SAQA/DHET framework tracking	[1]	

[1] new career engineering.pdf
[2] new 3career engineering3.pdf
[3] UserForm 90004444 career totand and trade portoloio.frm1.pdf
[4] UserForm total career outcom 90000333 , completed tota.frm to trade.frmt5.pdf
[5] UserForm17 police student registrar tshingombe tank ,,career.frm3.pdf
[6] 🗏 Technical Report TitleSHINGOMBE OPGENIAC.docx
Based on 20 sources

Entity Name	Department/ Qualification Title	SAQA/ID Number	Technical Specifications/Parameters	Operational Task/Activity	Assessment/ Accreditation Status	Budget/ Cost (Inferred)	Status/Outcome	Source
St. Peace College / City Power	National N Diploma / National Certificate in Electrical Engineering (N1–N6)	67109, 67375, 67491, 66881, 66960, 67005, 90674, 111285	NQF Levels 1–6; 360 credits; 220V (Single-Phase), 380V (Three-Phase), 400V to 33kV; Frequency: 50/60 Hz; Subjects: Mathematics, Engineering Science, Industrial Electronics, Electrotechnics, Trade Theory	Workplace training, panel wiring, electrical installations, transformer rewinding, motor control, fault finding, and maintenance; Implementation of ICASS, ISAT, and national examinations	Accredited by Umalusi, QCTO, and DHET; Professional Registration path with ECSA; SETA (Merseta, Sasseta) accreditation	R20,000 – R40,000 (Tuition); R4,800,000 (Projected); R40M (NSF Budget Cap)	Eligible for National Diploma after 18–24 months work experience; some results under investigation for irregularities	[1], [2], [3], [4], [5], [6], [7, 8], [9], [10], [11], [12]
City	Electrician	Ref: 001	Voltage	Maintena	Registered	R350,96	Operation	[1],

Power Johannesburg (SOC) Ltd	(Shift Worker) / Engineering Operations		levels: LV, MV, HV up to 88kV; Cable: 6 x single core 2500 mm2 Aluminium XLPE; Max Demand: 56kVA (SPU), >56kVA (LPU); Peak demand: 2800 MW	nce, repair, and installation of electrical systems; motor and transformer maintenance; network operations; meter reading and calibration	Employer for Artisans-in-training; Partner with ECSA Road to Recruitment; SANS 10142-1 compliance	6 (Task Grade 9 annual salary); R272,700,000 (Infrastructure Budget)	al service delivery and skill development; Active recruitment phase	[4], [1.3, 1986, 2000, 2094, 2135, 2176, 5200]
St. Peace College / City Power	Electrical Machinery (Motor / Transformer / Generation)	258937, 258968, 116434	Motor: Type 90 LS, 1410–3000 rpm, 1.8kW, IP 44; Transformer: 20kVA, 2500/500V; Flux: 0.00427wb; 60 turns of 1.15mm copper wire; Ns =120f/p	Motor/Transformer rewinding; Stator/Rotor disassembly; Induction motor torque/speed testing; Fault finding on control panels	SABS/SANS 0142 certification; Quality assurance via EIC (Electrical International Commissioner)	R90,000 (Sub-contractor rate); R9,500 (3-phase DB installation)	Successful certification of leakage current and pressure tests; practical lab experiments ongoing	[1], [3], [4], [10], [12]
Eskom	Electrical Substation Engineering / Generation / Graduate in Training	Reg No 2002/15527/30	Extra High Voltage (265–275 kV), High Voltage (110 kV+); 25kV/15kV	Electricity generation, transmission, and grid	Regulatory Adherence (SANS/IEC); Accredited Training Provider via SETA/ECSA	ZAR 15,459 per household connection;	Infrastructure provider for student practical work;	[1], [7, 8], [11], [13]

			catenary supply; Efficiency η=(Pout /Pin)×100%	management; protection systems for transformers; renewable energy integration		R174 billion (Gov guarantee)	Ongoing challenges with power shortages	
Operation GENIAC	Military Combat Engineering / AI / Infrastructure Automation	NQF Level 6–9	75MHz clock speed; 64KB memory; Combat Mass: 30F	Digitizing public infrastructure assets (SAIMS); tactical engineering (bridge building)	MIL-STD, ECSA, POPIA, SABS, DHET compliant	R40,000,000 to R50,000,000,000; R600M investment	Active flagship initiative for human-machine collaboration	[6]
Atlantic International University (AIU)	Masters / Doctoral in Electrical Engineering	71638	100% Distance Learning; Thesis: 7,500 – 15,000 words; Research on rural implementation and power factor correction	Curriculum design; Thesis research; Virtual Campus management via Moodle/ WebCT	Pending SAQA Foreign Qualification Evaluation; AS9100 quality alignment	$150 Application Fee; $300 - $450 per credit	Unresolved/Pending academic validation; Scholarship awarded	[2], [3], [10], [14]
Schneider Electric	Industrial Automation & Power Management	607069d9-fa26-423a-9d8c-d810df173a87	Modicon PLC range; Variable Speed Drives (ATV12); Motor Circuit Breakers (GV2ME32: 24-32A); EcoStruxure Expert Cert	Training in PLC configuration, energy modeling, and smart grid technologies; Protectiv	International standards (IEC 61508, SIL 2); EcoStruxure Expert Programming Level 1	R10,000 (Smart Panel module); 6% price increase on MCCB products	140+ training modules completed; active industrial solutions	[5], [6, 15], [7, 8], [11], [2]

				e relays configuration				
City Power / Eskom	Energy Storage Systems Project / Rural Electrification	Business Plan 2021/22	Max demand: 2800 MW; Solar PV: 27.527MW; Lithium-Ion storage: 7.268MWh; SHS: 0.3 to 0.4 kWh/day	Manage winter evening peak demand; store surplus energy; reduce maximum demand penalties	New Generation Regulations (October 2020) compliance	R40,000,000 (Max budget for RFP Phase 1); $4,000,000 (NSF funding request)	Feasibility study completed; Proposed framework for sustainable electrification	[4], [6, 15]
St. Peace College / City Power Project	Electricians Trade Test Panels	Tender: Learning Academy	Modular panels for electrician trade tests; SANS 10142-1 Compliance	Assessment of existing trade test panels; supply and delivery of modular panels	NAMB and/or SETA accreditation required for verification agency	R1,000,000 (Total bid price listed in tender forms)	Appointment of a verification agency for technical functionality	[1]
Dalkeith Substation to Lutz Substation	132kV/88kV Cable Supply Project	CP_TSSPEC_153	Voltage: 88kV; Cable: 2500 mm2 Aluminium XLPE; 200MVA firm capacity; Length: 4800 meters	Construction of double circuit supply; directional drilling; trenching and jointing	IEC 60071-1&2 Insulation Coordination; SANS 60840 testing	R684,000,000 (YTD Actual capital expenditure)	Design phase completed; Construction in progress	[5158, 4040, 1.3]
QCTO / SAQA	Occupational Qualification Sub-Framework	NQF Level 6/7/8/9	Minimum requirements: 18 months practical (General), 24 months (Engineering)	Oversight of trade testing (electricians) and foreign qualificat	Regulatory Body / Quality Assurance	R203.7 million (Claim for patrimonial loss context)	In progress / Marking irregularities under investigation	[7, 8], [13, 16]

				ion evaluation				
Madinda Utilities	Advanced Metering Infrastructure (AMI) Rollout	NQF Level 6 (Inferred)	DLMS/COSEM-compliant hardware; remote configuration; RFID asset tagging	National rollout across 186 municipalities; revenue protection and load management	IEC 62056-5-3, DLMS/COSEM, AFSEC, SABS compliance	$126M COP24 grant	2,700 direct jobs created; reduction of non-technical losses	[6]
National Skills Fund (NSF)	NSF CAREER Program	Reference: P-09874	Rural households (13.2 million), 50-watt SHS (0.3-0.4 kWh/day)	Funding research for rural electrification and vocational career learning	Grant Application / Proposal Stage	$400,000 to $4,000,000 (NSF grant standard ranges)	Declined/ Pending (Reason: Accredited institution requirements)	[7, 8]
South African Qualifications Authority (SAQA)	National Certificate: Electrical Engineering (Mining)	72071	133 Credits; NQF Level 3	Design and install electrical wire ways; Install/maintain low-voltage equipment	Registered Qualification	R3,000.00	Active	[5, 17, 18]
Tshingombe Tshitadi Engineering	Professional Services	Tax Ref: 9722328238	Services: Business Engineering, Technical Consulting	Implementation of a framework circuit college for a Master's degree qualificat	Registered on Central Supplier Database (CSD)	ZAR 100,920.00 (Total amount for INV-0004)	Quote Request Submitted to MPC	[5]

				ion				
Beijing Huadian E-commerce	B2B E-commerce sector	Not in source	346,672 products; 217 distinct users; Formula $r_{ui} = \sum_{v \in U} S(u,v) r_{vi}$	Product discovery; Bidding and non-bidding behavior tracking; Data fusion	Performance evaluation of recommendation model	Not in source	Case study results demonstrate proficient performance	[2], [14]
Microsoft	Cloud & Data Engineering	MCID: 99587175	943 Modules; 216 Learning Paths; 756+ Training Hours	Azure AI Fundamentals; GitHub Copilot; Microsoft Fabric Administration	Certified AI & Cloud solutions	R1,500.00 (Azure AI Fundamentals)	Verified learning paths and certifications	[5]
Nogada Security Service	Private Security Industry	LTA 7.13	Grade A–F levels; PSIRA compliance	Asset in transit protection; CCTV monitoring; Firearm competency tracking	PSIRA accreditation; SASSETA accredited	R 87,163.71 (Total money due to council)	Pending Litigation; Compliance order issued	[2]
Metropolitan Police (UK)	Technical Surveillance / IP License	Ref: MIO 327	SQL Server Database, CCTV resolution (429 TVL, 512H x 582V)	Submission of Intellectual Property license request; forensic engineering	Under Review; Vetting / Security Clearance	Not in source	Candidate added to Talent Bank	[5, 19], [7, 8]
SAPS Radio Technical Unit	Radio Infrastructure Maintenance	TMS 36/2019	NQF Level 6; Communication Monitor, Signal Generator, Oscilloscope	Repairs, installation, and maintenance of radio	Security screening and fingerprint vetting required	Not in source	Vacancy active	[4]

				equipment at Radio High Sites				
National Instructional Media Institute (NIMI)	Electrician 4th Semester Trade Practical	NSQF (Level - 5)	Motor Drives, Inverters, UPS, Circuit Breakers, Relays	Practical theory training; Determination of resistance by colour code	Directorate General of Training (DGT)	Not in source	Completion of 48 exercises (525 Hrs)	[16]
SQA Academy	National 5 Skills for Work: Energy	Course Code: C258 75	24 SCQF Credit Points; Units: J12W 75, J12Y 75, J130 75, J12X 75	Career planning and employability skills tailored to energy sector	Automatic certification of core skills at SCQF Level 4	Not in source	Direct training or employment opportunities	[12]

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[3] 398987_Prospect student alu research 2 assessement thesisi experimental ,,.docx
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[7] 359173_Proposal of thesis content 2 final research(2).docx
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[10] new 4career engineering4.pdf
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Based on 50 sources

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idate	Name	n/College	/Faculty	tion/Level	Type	sment Score	tcome	Number	urce
2023-12-24	Tshingombe Tshitadi Fiston	St Peace College	Electrical Engineering	NQF Level 6	Portfolio Evidence	120 credits	Meets requirement	20191130002	[1]
2022-08-20	Tshingombe Tshitadi	St Peace College	Electrical Engineering	NQF Level 6	Statement of work experience	Satisfactory performance	Competency confirmed	90643	[2]
2021/12/01	Tshingombe Tshitadi Makangu Fiston	Shalom Technical College	Electrotechnics N4, Industrial Electronics N4	N4	Statement of Results	18, 19	Fail / Druip	2100002023812	[3]
2023/11/01	Tshingombe Tshitadi Makangu Fiston	Shalom Technical College	Industrial Orientation N3, Electro-Technology N3, Electrical Trade Theory N3	N3	Statement of Results	48, 55, 27	Pass/Fail	2100002023812	[3]
2021/12/01	Tshingombe Tshitadi Fiston	DHET / RSA	Electrotechnics N4, Industrial Electronics N4, Engineering Science N4, Mathematics N4	N4 Engineering Studies	Statement of Results	18, 19, 35, 29	Fail / Druip	210000203812	[4]

2020/12/01	Tshingombe Tshitadi Makangu Fistos	Afric Training Centre	Mathematics N1	N1	Statement of Results	5	Outs/Uits	2011007434332	[3]
2020/10/31	Tshingombe Tshitadi	St Peace College	Panel Electrical Wiring	Nated	Award Certificate	80%	Pass / Competent	COM 182609001	[3, 4]
2019-11-01	Tshingombe Tshitadi	DHET	Engineering Science, Trade Theory Electrical, Industrial Electronic, Mathematics	National Certificate N1-N6	Transcript/ Certificate	50%	Pass	Not in source	[1]
2022/02/12	Tshingombe Tshitadi	St Peace College / Afric Policing Institut	Applied Policing / Engineering	N3-N6	Complaint Form / Result Retention	Not in source	Results Retained / Under Investigation	INCO0002527705I / ID: 2100002023812	[4, 5]
2022/11/03	Tshingombe Tshitadi	St Peace College / Shalom Technical College	Engineering Electrical	NCV Level 4	Letter of Enquiries	Not in source	Irregularity/Collapse	TIRCOG000910610	[6]
09 Feb 2023	Tshingombe Tshitadi Fiston	St Peace College	Engineering Electrical / Education Technology	NQF 6 / NQF 7	Portfolio Evidence / Statement of Results	100 marks	Submitted / Assessment in progress	Not in source	[4]
2022/	Tshin	ETDP	Assesso	NQF	Assessor	Not in	Closed	TIRGOG000910	[6]

05/15	gombe Tshitadi Fiston	SETA	r Moderator Engineering Electrical	Level 6	Registration Form	source		610	
2023/05/08	Tshingombe Tshitadi	St Peace College	Engineering Electrical	N Diploma	Enquiry/Letter	Not in source	Under Investigation (Irregularity case)	2100002023812	[6]
2024-07-17	Tshingombe Tshitadi Fiston	St Peace College	Electrical Engineering	National N Diploma (N1-N6)	Qualification Portfolio / Evidence Log	Not in source	No meeting outcome	90674	[7]
2023	Tshingombe Tshitadi Fiston	St Peace College	Electrical Engineering	NATED N1-N6	Portfolio career research	Not in source	Completed research	Not in source	[6]
2023/04/05	Tshingombe Tshitadi	City Power / St Peace College	Engineering Electrical Assessor Learner	N4, 5, 6	NSF Application Template	Not in source	Application Submitted	Not in source	[6]
23 April, 2023	Tshingombe Tshitadi	St Peace College / City Power	Engineering Electrical	National Diploma (N1-N6)	Cover Letter / Career Outcome Request	Not in source	Requested experience/training completion	Not in source	[4]
2022/2023	Tshingombe Tshitadi	St Peace College	Engineering Electrical	N1, N2, N3 / N Diploma	Teaching and Learning Plan / Portfolio	40% Class work, 60% Exam	Completed / Qualify	Not in source	[6, 8]
2022-02-01	Tshingombe Tshita	Shalom Technical Center	Electrotechnics N4	N4	Admission Permit/Time-table	Not in source	External Examination	2100002023812	[1, 9]

	di Fiston								
2022/02/07	Tshingombe Tshitadi Fiston	Shalom Technical Center	Mathematics N4	N4	Admission Permit/Time-Table	Not in source	External Examination	2100002023812	[9]
2020/07/17 - 2020/07/21	Tshingombe Tshitadi	Afric Training Centre	Industrial Electronics, Engineering Drawing, Electrical Trade Theory, Mathematics	N1 Engineering Studies	Admission Permit / Examination Timetable	Not in source	External Examination	2004007064381	[4]
2024-04-17	Tshingombe Fiston	SAQA / QCTO	Engineering Studies	N4, N3, N5, N6	Email correspondence (Appeal)	Not in source	Pending verification	Not in source	[10]
2022/08/12	Tshingombe Tshitadi Fiston	SAQA	Foreign Qualifications Evaluation	NQF Level 6	Email correspondence / Evaluation Statement	360 Credits	Verification Rejected / Resubmission Required	202207085055 / 90674	[8, 9, 11]
2025-10-26	Tshitadi T and Tshitadi T	F1000Research	Career drawing total programming / Engineering and Education Tech	Research Paper	Published Document / DOI	Not in source	Published (Not Peer Reviewed)	doi: 10.7490/f1000research.1120368.1	[12 - 14]
2025-02-16	Tshingombe Tshitadi	Engineering Research Publication / IJETR	Engineering Electrical Trade Researc	Masters / Degree Honour	Accepted Manuscript	Not in source	Accepted (Pending Payment)	IJETR3147	[13, 15]

			h (Thesis) / Law						
2025-10-15	Tshingombe Engineering	NSF SBIR/STTR	Power Management (PM)	Fast Track	Pitch/Submission	Not in source	New (Active Submission)	00110596	[13]
2025-02-03	Engineering Tshingombe / Tshingombe Tshitadi	NSF SBIR/STTR	Adv. Systems for Scalable Analytics (AA)	Standard / Phase I Proposal	Pitch/Submission	Not in source	Decline	00097898	[13, 15]
2025-04-10	Engineering / Tshingombe Tshitadi	NSF SBIR/STTR	Energy Technologies (EN)	Standard / Phase I Pitch	Pitch/Submission	Not in source	Decline	00100839	[13, 15]
2025-08-15	Engineering Tshingombe	NSF SBIR/STTR	Other Topics (OT)	Fast Track	Pitch/Submission	Not in source	Decline	00107251	[13]
2025-10-04	Tshingombe Tshitadi Fiston	GitHub Copilot / Microsoft	Accelerate app development by using GitHub Copilot	Module assessment passed	Training Transcript	100%	Pass	46307064	[12]
2025-08-30	Tshingombe Tshitadi Fiston	Microsoft Learn	Machine Learning / AI	Module completion	Practice material log	100%	Completed	46307064	[12]
2023-	Tshin	ISC2	Cyberse	ISC2	Certificati	Not in	Issued	46307064	[14

11-14	gombe Tshitadi Fiston		curity	Candidate	on record	source			]
2025-10-08	Tshingombe Tshitadi Fiston	GitHub	CI/CD Contributor Badge	Badge	Certificate /Award	Not in source	Awarded	Not in source	[13]
08 February 2024	Tshitadi Tshingombe	South African Reserve Bank (SARB)	Artisan-Electronics CT	Not in source	Job Offer	Not in source	Successful application / Offer accepted	Job offer (99)	[4]
2014-05-08	Not in source	Eskom	Protective Services	Grade 12 / PSIRA Grade C	Job Vacancy Advertisement	T05	Not in source	329-1631109IS	[1]
2019-02-08	Tshitadi Fiston Tshingombe	Labour Court of South Africa	Applied Policing / Security Sector	Not in source	Court Judgement	Not in source	Case struck off the roll	JR2461/15	[11]
2024-11-14	Tshingombe Tshitadi	CCMA	Labour Relations / Dispute Management	Not in source	Mediation & Arbitration Notice	Not in source	Scheduled	JR 2461/15	[11]
2024-11-09	Tshingombe Tshitadi Fiston	SAPS (Hilbrow)	Criminal Follow-up / Security	Not in source	Affidavit / Case Reference	Not in source	Investigation status pending	CAS 297/11/2024	[11]
2024-06-25	Tshingombe Fiston	National Treasury (CSD)	Registration Process	Not in source	Email correspondence / Status update	Not in source	Resolved	1900050	[10, 16]
Not in	Tshingomb	City Power	Electrical	TVET Curriculu	Site Visit / Complaint	Not in source	Unresolved / 0%	CP 3297317	[11]

source	e Tshitadi	Johannesburg	Infrastructure / Trade Exposure	m			Resolution Rate		
Not in source	Tshingombe Tshitadi	African Institute of Police / Shalom College	Applied Policing	N-Diploma	Internal College Record	Not in source	Disputed Assessment	Not in source	[7, 8, 11]
Not in source	Tshingombe Fiston	Alison	Essentials of Electrical Safety	CPD Certified	Certificate	Not in source	Awarded	5273-37876299	[17]
2025-10-17	Tshingombe Tshitadi	F1000Research	Job Education Research Methodology	Not in source	Research Paper	Not in source	Published	version 1	[12, 14]
2023-11-16	Tshingombe Tshitadi Fiston	Microsoft Ignite / Teams	Build custom agents for Microsoft Teams	Learning path completed	Training Transcript	Not in source	Completed	46307064	[12]
2025-08-28	Tshingombe Tshitadi Fiston	AI Fluency / Microsoft	AI Fluency	Learning path completed	Training Transcript	Not in source	Completed	46307064	[12]
2024-07-01	Tshingombe Fiston	PSIRA	Private Security	Security Officer	Licensing application	Not in source	Inactive / In Progress	APP-6163228	[18]
2023/06/23	Tshingombe Fiston	Metropolitan Police Service	Development Operations Engineer	Band N	Application update	Not in source	Not eligible/Regret	17305	[16]

01/02/2024	Tshingombe Fiston	Shalom Technical College	N3 Engineering Studies	N3	Statement of Results	Not in source	Released / Failed subjects	Waybill: 080057034873	[4]
2022-03-18	Tshingombe Tshitadi Fiston	SAQA	Foreign Qualifications Evaluation	N3-N6	Email correspondence	Not in source	Pending re-submission	Not in source	[1]
2023/10/29	Tshingombe Tshitadi	Tshingombe Tshitadi Engineering	Engineering Electrical	Not in source	R&D Tax Incentive Report	Not in source	In-progress	9722328238	[19]
2024/06/24	Tshingombe Fiston	QCTO (Central Office)	Qualification-Programme Related	Not in source	Inquiry acknowledgement	Not in source	Inquiry received	2024-24-06-4401	[16]
2025-11-13	Tshingombe Tshitadi	IJETR (Vol 15 Issue 1)	Trade/Technical Documentation	Research Paper	Academic Manuscript	Not in source	Pending	IJETR3181, IJETR3182	[13]
2025-02-18	Tshingombe Tshitadi	IJETR (Vol 15 Issue 1)	Project engineering thesis master rural	Thesis/Paper	Academic Manuscript	Not in source	Rejected	IJETR3148	[13]
2025-04-17	Tshingombe Tshitadi	NRF Connect	Foundational Biodiversity Information	Concept Note	Grant Application	Not in source	Application Complete	FBIC250410310077	[15]
Not in source	Tshingombe Tshitadi	St Peace College	Applied Policing	NQF Level 6	Portfolio Evidence	Not in source	Evidence verified	Not in source	[12, 14]
2022-02	Tshingombe	St Peace College	Electrical Enginee	N4	Internal statement certificate	Not in source	Proof of internal examinati	Not in source	[2]

	Tshitadi		ring				on		
2023/02/20	Tshingombe Tshitadi Fiston	City Power / St Peace College	Engineering Electrical	N1-N6	Resume/CVS	Not in source	In progress	Not in source	[6]
2020-06-25	Not in source	Ekurhuleni Tech College	Technical Matric N3	N3	Registration Extension Email	Not in source	Registration Pending	Not in source	[1]
2023/09/17	Tshingombe Fiston	Not in source	Mathematic Informatic	Not in source	Email correspondence	Not in source	Not in source	Not in source	[6]

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Based on 10 sources

Date	Institu	Module /	Formula / Algorithm	Resul	Award /	Notes /	So

	tion	Item	(Inferred)	t / Status	Certificate	Integration Points	urce
2024-04-06	Atlantic International University (AIU)	Doctorate in Engineering - Specialist Infrastructure	$E=\int_{t1}^{t2} V(t)\cdot I(t)dt$	In Progress	Masters in Engineering Systems (NQF Level 8)	Thesis: Curriculum Integration and Career Mapping; Portfolio integration via LMS	[1]
2012-07-01	Cape Peninsula University of Technology / SAQA	Doctor of Technology: Engineering: Electrical (ID 78780)	Dissertation=Research+Knowledge Production	Replaced by ID 97019	Doctoral Degree (NQF Level 10)	Requires Master's Degree for entry; 240 credits	[2]
2025-10-08	Atlantic International University	MBM302 Master Thesis Review	Not in source	$300	Master of Engineering Systems – Thesis Accepted	Portfolio artifact submitted to LMS and AIU Library	[3]
16 May 2025	SQA	AH Engineering Science (X823/77/11) - Energy Systems / Amplifier Design	$P=31\cdot D\cdot Rds\cdot(ION2+ION IOFF+IOFF2)$	Assessment Scheduled; Section 1 - 35 Marks	Advanced Higher Engineering Science	Includes CHP efficiency and Amplifier Design; Linked to GitHub: Kananga5/engineering-theoretical-pratical-framework tshingombe	[4, 5]
2024 – 2025	SQA	Electrical Engineering	$V=I\cdot R$, $P=I2\cdot R$	Supervised, holisti	SCQF Level 7 (24 Credit Points)	NextGen HN v4.0; mapped	[5]

		Principles (SCQF Level 7)		c assessment		via SAQA/DHET standards	
September 2025	Ministry of Higher Education and Research (France)	BTS Electrotechnics (RNCP41007)	$\eta = P_{in} \quad P_{out}$	Registration Start	BTS Degree (NQF Level 5)	Focus on Smart Electrical Installations; replaces RNCP35346	[2]
2021-07-01	UMALUSI / SAQA	National Certificate: N2 Engineering Studies (ID 67375)	Pass Requirements=Cat A+Cat B+Cat C+Cat D	Passed End Date	National Certificate N2	Instructional offerings include Electrical Trade Theory 11041872	[2]
2019-12-05	South African Qualifications Authority (SAQA)	National Certificate: Electrical Engineering (ID 72051)	Total Credits=$\sum$Unit Standard Credits$\geq$133	Reregistered	National Certificate (NQF Level 3)	Replaces Qual 48475; articulation into NQF Level 4	[2]
August 2018	National Instructional Media Institute (NIMI)	Electrician 1st Year (Volume I) - Trade Theory - NSQF LEVEL 5	Ohm’s Law: $V = I \times R$	First Edition Published	NSQF Level 5 Certification	Government of India Ministry of Skill Development & Entrepreneurship	[2]
2018-07-01	QCTO / DHET	National Certificate: N4 Engineering Studies (ID 66881)	Eligibility=(N3 Cert)$\vee$(Senior Cert with 3 subjects)	Replaced by ID 122626	National N Certificate N4	Includes ElectroTechnics N4 (08080074)	[2]

January 2021	DHET (Report 191)	Electrotechnics N6	Promotion Mark=(ICASS×0.4)+(Exam×0.6)	Active Syllabus	Part of National N Diploma	Modules: DC Machines, AC Theory, Transformers, AC Machines	[2]
Not in source	SAQA / QCTO	National N Diploma: Electrical Engineering (90674)	PRMS =T1 ∫0T i(t)2dt	Pending recognition of foreign credits	NQF Level 6 (360 Credits)	WA Code competency framework (WA19-WE26); integration with ECSA candidate registration	[1]
2025-10-08	Schneider Electric / Eaton	EcoStruxure Smart Panel	Etotal =∫0T (Econv −Esmart)dt	R10,000	Certificate – Energy Management Compliance	Record submitted to GitLab audit log and Azure DevOps billing portal	[3]
2025-10-08	Eaton Power Advantage	9PX UPS System Sale	η=Einc Egen	R15,000	Certificate – Power Management Fundamentals	Record submitted to LMS and GitHub audit log	[3]
2024	Eaton	Power Xpert C445 Completion	C445 Logic=Diagnostic Fault Matrix	Completed	Completion Certificate	CPD recognition and professional portfolio	[4]
13 December 2024	Salesforce (IASME)	Cyber Essentials Plus	Status=IF(TODAY>ExpiryDate,"Expired","Active")	Active	CE-PLUS-2025-001	BlockMark Registry; Hash anchoring	[4]
Oct 4, 2025	GitHub / Microsoft	Accelerate app development by	Progress=(Total UnitsCompleted Units)×100	Pass Score: 100%	Beginner Developer .NET / APL-2007	Integrated with VS Code and GitHub	[6]

		using GitHub Copilot					Repositories for code improvement	
2025-10-08	GitHub	Reward Model Deployment – PRM	Fui =wo Oui +wa Aui +wb Bui		$80	Contributor Badge – RewardHub	Record submitted to GitHub audit log and Archive.org metadata index	[3]
Oct 26, 2025	F1000 Research	Career drawing total programming: Analysis, Design, Investigation	Pmax =4ZV2		Published (Version 1; Not peer reviewed)	DOI: 10.7490/f1000research.1120368.1	Affiliated with SAQA and AIU Online Library	[6]
17 October 2025	F1000 Research	Application trade discovery: Job education research methodology	DOI Anchor=10.7490/f1000research.1120369.1		Published	DOI: 10.7490/f1000research.1120369.1	Citable document; version 1	[4]
15 August 2025	F1000 Research	Drawing analyse design system	Result=Decision(Peer Review Policy)		Rejected	None	Poster submission failure	[7]
2025-10-08	ECSA / CCMA / Home Affairs	Professional Engineering Registration	Not in source		R1,000	Certificate – Registered Professional Engineer	Record submitted to CCMA dispute resolution log and Master Court archive	[3]
2025-10-08	Alison Learning	Diploma in Electrical	Not in source		$93.35	CPD Accredited Diploma – Electrical	Record submitted to	[3]

		Engineering			Engineering	SAQA/NQF dashboard and GitHub credential repository	
2025-10-08	Shoprite / CNA / Elektor	Elektor Electronics Starter Kit	T=∫0N ti di	R360	Certificate – Electronics Fundamentals	Record submitted to GitHub credential repository and SAQA/NQF dashboard	[3]
3 November 2025	Archive.org	Design Career 10 Application Trade Drawing	Scale=Actual SizeDrawing Size	Open Source	Creative Commons BY-NC-SA 4.0	Integrated with UserForm190000002; identifier: design-career-10-application	[6, 8]
15 October 2025	SQA	Engineering Career Discovery Journey	Progress=Total Modules Completed Modules ×100	Completed	Not in source	Integration with GitHub and Internet Archive	[4]
2024–25	SQA	National 5 Engineering Science Assignment: Leisure Pool Complex	Velocity Ratio=Input Gear TeethOutput Gear Teeth	50 out of 160 total marks	National 5 Certificate	8-hour duration; SCN-labeled evidence printed on A4	[5]
15 March 2026	SQA (Virtual Work Experience)	Responsible Business Task: Communi	Risk Rating=Likelihood×Severity	Planning Phase	SQA Academy Module Achievement	Glasgow Hidden Gardens; automated via	[5]

		ty Garden				UserForm (SQAForm)	
Feb 2025	SAQA / DHET	National Learners' Records Database (NLRD) Expansion	Verification Rate=Total Requ estsFulfilled Requests ×100	68% verification	NQF 5-Year Target Achievement	Audit Traceability; 24.5 million learner achievements reflected	[8]
2021	Schneider Electric	Industrial Automation & Sustainability Training	Efficiency=Input PowerOutput Power ×100	Completed	LMS-integrated Certificate	Mapped to WA codes and SAQA sustainability descriptors	[1, 9]
2023	Microsoft	Digital Credentialing & LMS Strategy	Binary State∈{0,1}	Completed	Copper Contributor / Solver Badge	Microsoft Learn pathways; Reddit API integration research	[1, 9]
14 January 2024	Schneider Electric	Physical Infrastructure Management Basics Quiz	Score=10Correct Answers × 100	30% (Failed)	Not in source	Managed via Cornerstone OnDemand LMS	[4]
22 January 2024	Schneider Electric	Robotics (Test)	TCP Position=f(IF_Feedback)	44% (Failed)	Not in source	Integration with IF_Feedback and IF_Motion interfaces	[4]
2016-10-06	French Ministry of National Education	Competency Block Certification (CAP, Bac Pro, BTS)	Diploma=∑Competency Blocks	Implemented	Professional Certification	Validation of Prior Experience (VAE) integration	[2]
2017-01-01	URFIST Paris / École	Invention Patents Tutorial -	Patentability=Novelty+Utility +Inventive Step	Available Onlin	Not in source	http://urfist.enc-sorbonne.fr	[2]

	nationale des chartes	Module 8		e		/les-brevets-d-invention/	
2025-10-08	Metropolitan Police UK	CCTV Footage for Research	Rate=k[A]m[B]n	£300	Publication Approved – F1000Research	Record submitted to ORCID registry + MOPAC Archive	[3]
2024-07-21	Department of Justice (DOJ)	Civil Law Case URN 112024CIV000005	Procedural Adherence=∑(Affidavit+Transcript+Evidence)	Pending Review	Not in source	Linked to career claims and trade qualifications	[9]
2018-04-03	Labour Court of South Africa	Case JR2461/15 (Tshingombe vs Nogada Security)	Outcome=f(Attendance,Affidavit Compliance)	Struck off	No cost order issued	Includes certified transcription (8 pages, 1 CD); CCMA awards	[9]
2023-11-09	South African Police Service (SAPS)	Case CAS 297/11/2024 (Hilbrow)	f=ma+mg	Investigation Requested	Not in source	Involves ID theft and wallet loss; linked to security application	[1, 9]
2025-06-12	Masters Office, Johannesburg	Trust Registration Summary URN 9922025TRU000436	Compliance=Total Required DocumentsVerified Documents	Submitted	Not in source	Trust Name: Tshingombe; 3-month submission deadline	[9]
2025-10-08	SASSETA / CCMA	Labour Law Training Module	Not in source	R800	Certificate – Workplace Dispute Resolution	Record submitted to MERSETA dashboard and Home Affairs	[3]
2025	NRF /	MATLA	Not in source	R4,00	IJETR3156 –	Portfolio	[3]

-10-08	AIU	B Research License			0	Paper Accepted	artifact submitted to NRF dashboard and AIU Library	
Not in source	Salesforce / SAQA	Engineering Theoretical/Practical Framework Assessment	Z=rg	+jxd	Modular Marking	Trailhead Workforce Badge	Tableau/Trailhead mapping; SAQA ID 72052/90674	[5, 6]
Not in source	Salesforce (Inferred)	Credential and Patent Recommendation Tracking	If Credits≥90 then Certified		Logic Developed	Teaching Authorization Ready	Integrated with UQAM Registrariat for Teaching Certificates	[2]

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Engineering Prof Civil Auxiliary Plant (Generation) Lethabo Power Station	2024/09/25 10:14 AM	Eskom	Generation	Lethabo Power Station	[6, 7]
Engineering Prof Civil Auxiliary Plant (Generation) Lethabo Power Station	Not in source	Eskom	Generation	Lethabo Power Station	experimental scheiner university summary Product Selector Tool(1)(1).docx, [8], Portofolio evidence low dhet saqa su(2).docx [User Description Context]
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Engineer Prof Eng Quality of Supply (National Transmission Company South Africa) Newscastle	2024/09/01 01:43 PM	National Transmission Company South Africa	National Transmission Company South Africa	Newcastle	[4], sharepoint@eskom.co.za Sun, Sep 1, 2024 [9]

Engineer Prof Engineering (NP)Distribution Bloemfontein	2024/05/19 09:38 AM	Eskom	Distribution	Bloemfontein	[4]
Engineering in Training (Generation) Megawatt Park	2023/12/19 11:00 AM	Eskom	Generation	Megawatt Park	course ciriculum total course thesis alumine(2)(1).docx [1]
Engineering Professional (Generation) Megawatt Park	2024/08/02 02:44 PM	Eskom	Generation	Megawatt Park	[6, 7]
Engineer-in-Training-Control and Instrumentation AND-Auxiliary and Ancillary-(Peaking Durbanville)-X2	2024/09/01 01:40 PM	Eskom	Peaking	Durbanville	[4]
Engineer-in-Training-Control and Instrumentation AND-Auxiliary and Ancillary-(Peaking Station	2024/09/01 01:40 PM	Eskom	Peaking Station	Not in source	sharepoint@eskom.co.za Sun, Sep 1, 2024 [9]
Engineers in Training X09_ Electrical HC x2_ C and I x3_Mechanical or Chemical x3_Industrial Engineering x1 (Gx Kusile Powe	2024/05/19 09:36 AM	Eskom	Generation	Kusile Power Station	[4]

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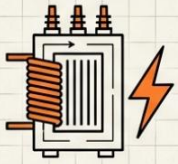
[4] experimental City Power tshingombe.docx
[5] letter employment self assement , Incidence eaton employement.docx

[6] All notes 11/18/2025
[7] f1000research-757660.pdf
[8] Book1 EXCELLEXAMINATIONREGISTER SUPPLY ST PEACE STtement diplomat.xlsx - Sheet2.pdf
[9] ACFrOgAJMfh9xwDrlGM_5LlxjpkWwe5ufW87iWmMyLwVLmOEvyAWZaQG3YSs92Fmo5wDo6MYUJIWn06KqksEqzKuBHvF7lnbLNIPYMVwDOUyRhIBgJ14FrccQqGDHbjio4OCf-ftW35T1kdkbhx5tw8LaTl-3D9F4zQY5rPJBQ==.pdf

EXECUTIVE PROFILE: THE POLYMATH APPROACH

ELECTRICAL ENGINEERING



Expertise in PV installation (6.5kW – 250kW), MV/LV transformers, and Smart Grid connectivity using MKM35512 Series metering. Focus on heavy current systems and grid integration.

SOFTWARE DEVELOPMENT

Full-stack capabilities in VB.NET and C#, focused on secure database management, ATM banking logic, and automated registration systems. Transforming logic into functional code.

LEGAL & SECURITY OPS

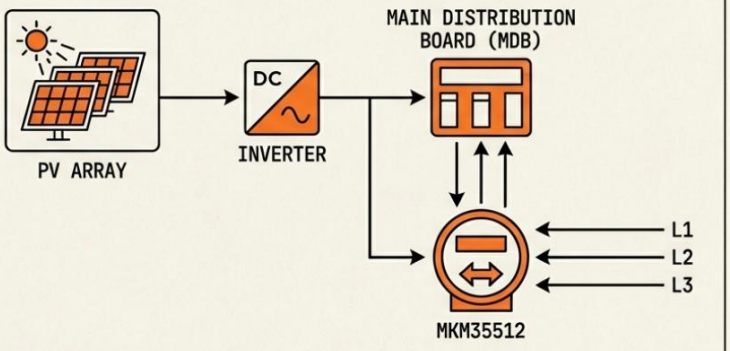
Deep understanding of South African legal frameworks (Domestic Violence Act 116 of 1998, POPIA) applied to the design of secure Crime Management Systems.

KEY INSIGHT: Transforming manual administrative bottlenecks into streamlined, automated digital workflows.

NotebookLM

POWER INFRASTRUCTURE & RENEWABLE ENERGY

- **PV Systems**: Design/Install range 6.5kW to 250kW (Grid-Tied).
- **Grid Integration**: Main Station Substation management (MV/LV Transformers).
- **Protection**: SPD (Surge Protection Devices) & Tesys Motor Management.
- **Connection**: 3-Phase Utility Network (L1, L2, L3).



SLD SCHEMATIC

KEY INSIGHT: Seamless integration of renewable energy with robust grid infrastructure for intelligent, resilient power management.

NotebookLM

POWER INFRASTRUCTURE & RENEWABLE ENERGY

- **PV Systems**: Design/Install range 6.5kW to 250kW (Grid-Tied).
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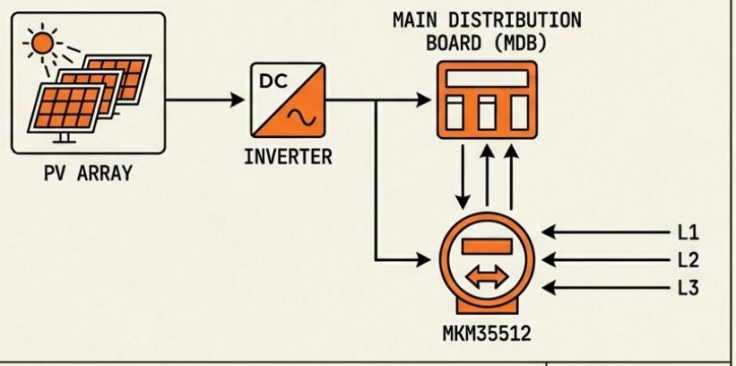
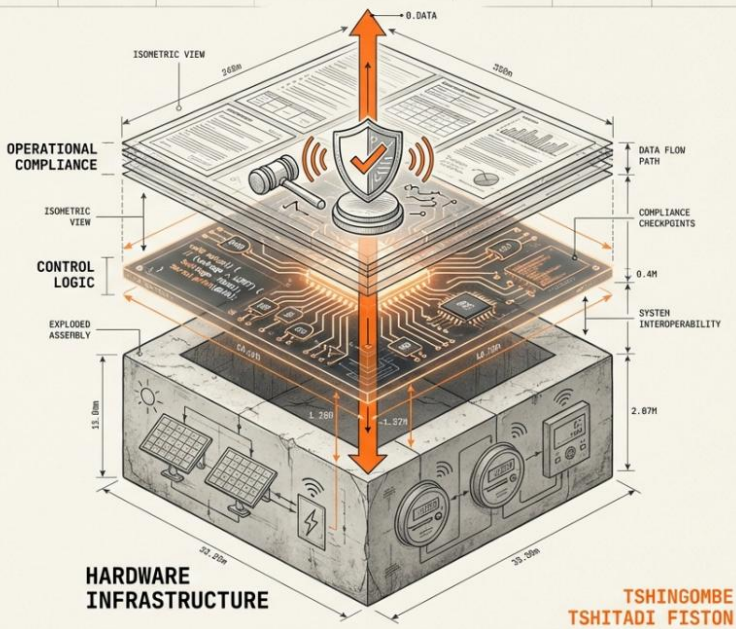


KEY INSIGHT: Seamless integration of renewable energy with robust grid infrastructure for intelligent, resilient power management.

NotebookLM

INTEGRATED INTEGRATED SYSTEMS & ENGINEERING PORTFOLIO

Bridging High-Voltage Engineering, Software Architecture, and Legal Compliance Frameworks.

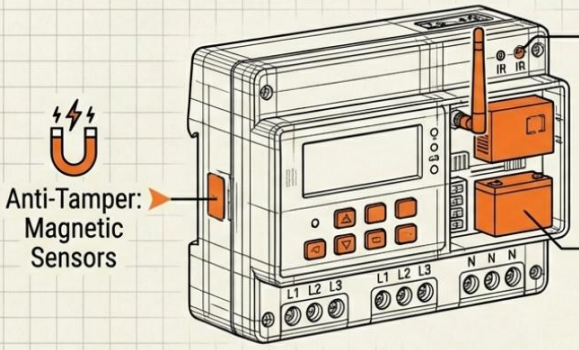


TSHINGOMBE TSHITADI FISTON

NotebookLM

ADVANCED METERING INFRASTRUCTURE (AMI)

MKM35512 Series Three-Phase Smart Meter



MEASUREMENT SPECS

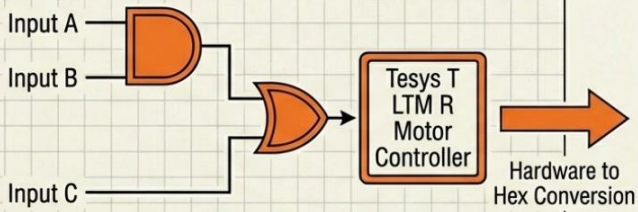
- Active Energy: $\int u\, i\, dt$
- Nominal Voltage: 240VAC ±20%
- Current Range: 0-60A
- Frequency: 50Hz ±5%
- 4-Quadrant Measurement (Import/Export)

Hardware design includes analog signal conditioning and digital circuit integration.

NotebookLM

INDUSTRIAL AUTOMATION & PLC LOGIC

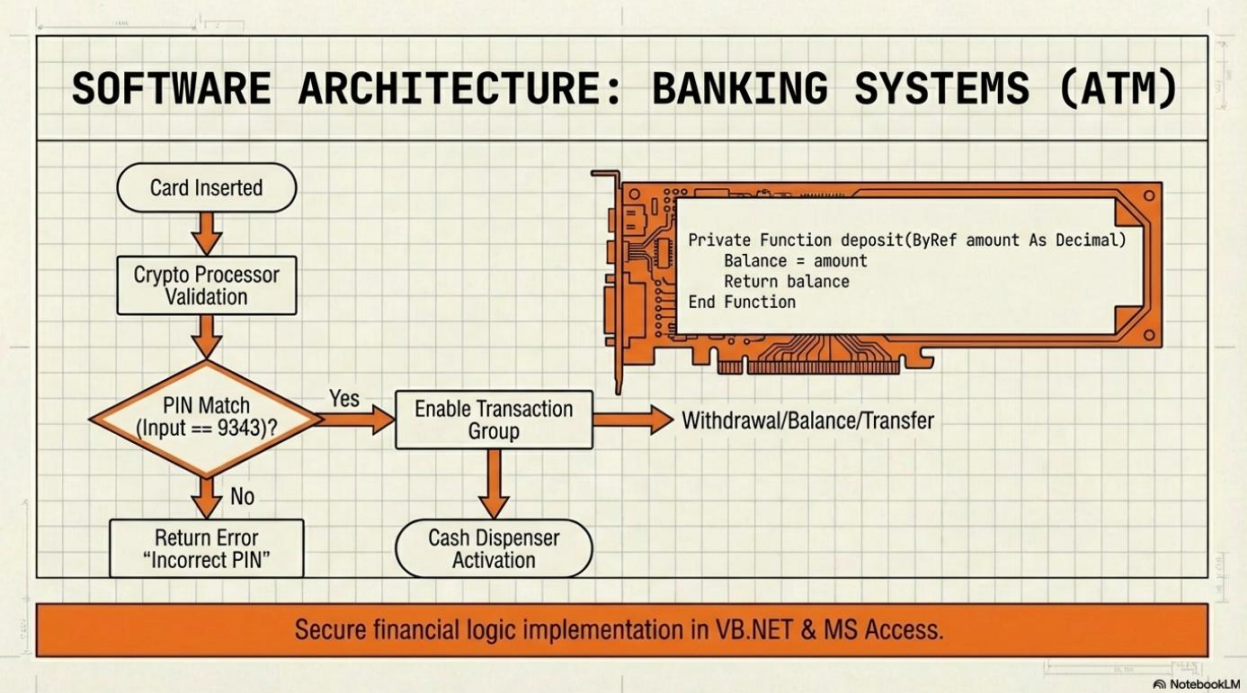
HARDWARE LOGIC DIAGRAM

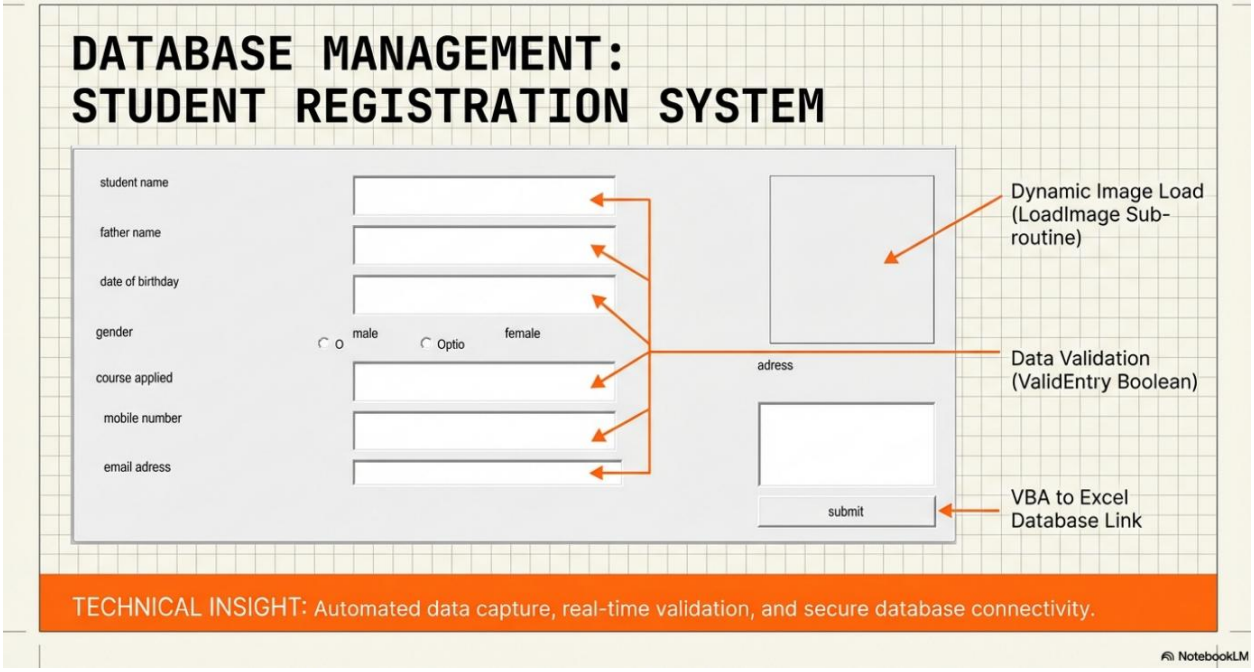



```
// PLC READ/WRITE COMMAND STRUCTURE
string Cmd = "";

Cmd = cmd + "5000"; // Sub Head (Net)
Cmd = cmd + "FF";   // PLC Number
Cmd = cmd + "000A"; // CPU Inspector Data
Cmd = cmd + "0401"; // Read Command

// Address Decoding
DeviceCode = "D*";
TargetAddress = "009500";
```

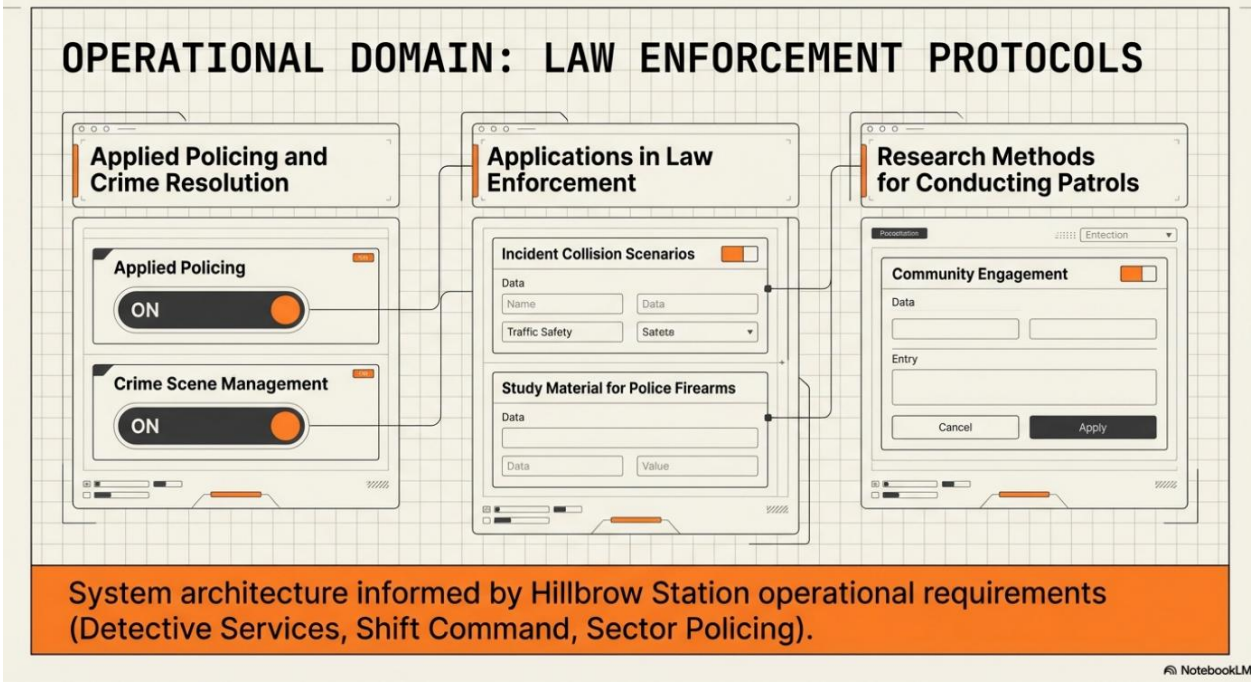
TECHNICAL INSIGHT: Staptical automation & crocoritic senseity, operatons, and encillation.

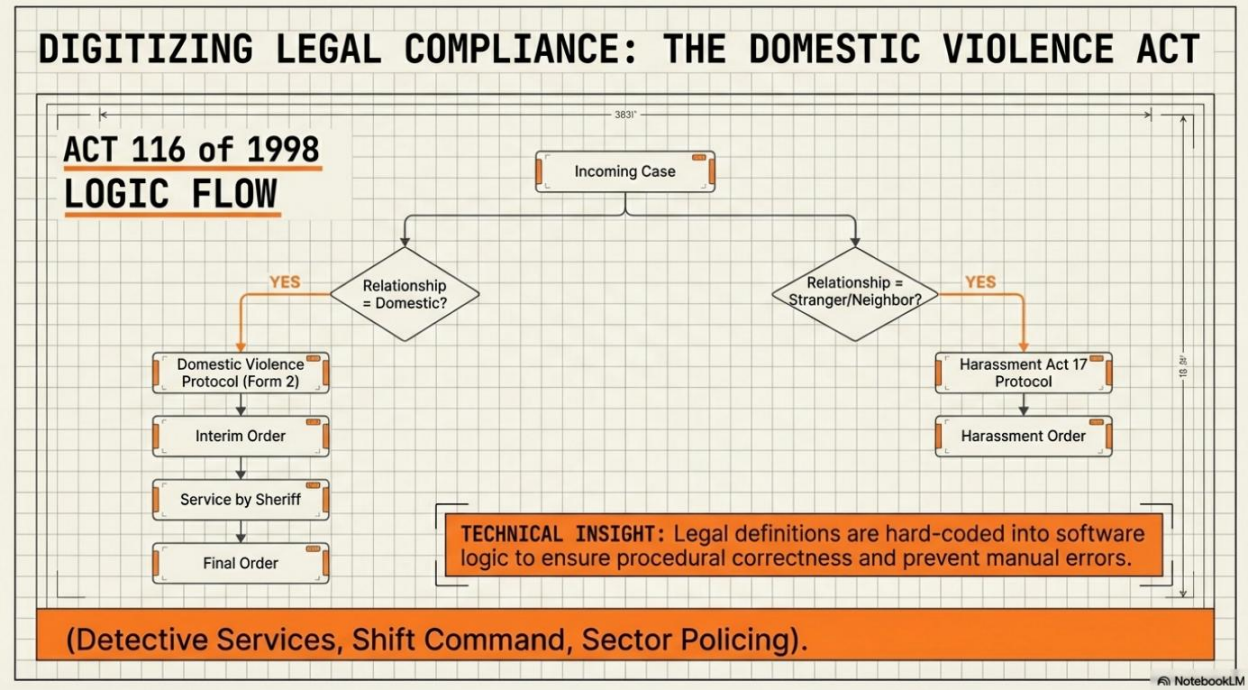
NotebookLM

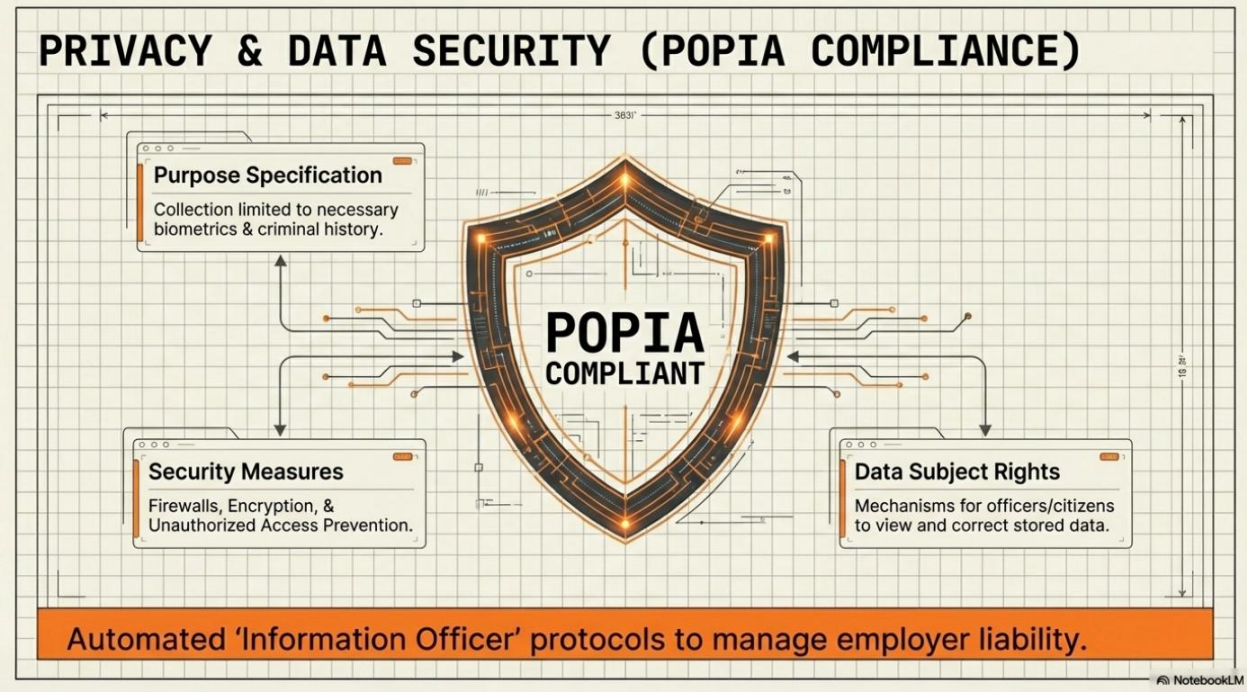

SOFTWARE ARCHITECTURE: BANKING SYSTEMS (ATM)
Card Inserted
Crypto Processor Validation
PIN Match (Input == 9343)?
Yes
No
Enable Transaction Group
Withdrawal/Balance/Transfer
Return Error "Incorrect PIN"
Cash Dispenser Activation
Private Function deposit(ByRef amount As Decimal)
Balance = amount
Return balance
End Function
Secure financial logic implementation in VB.NET & MS Access.
NotebookLM

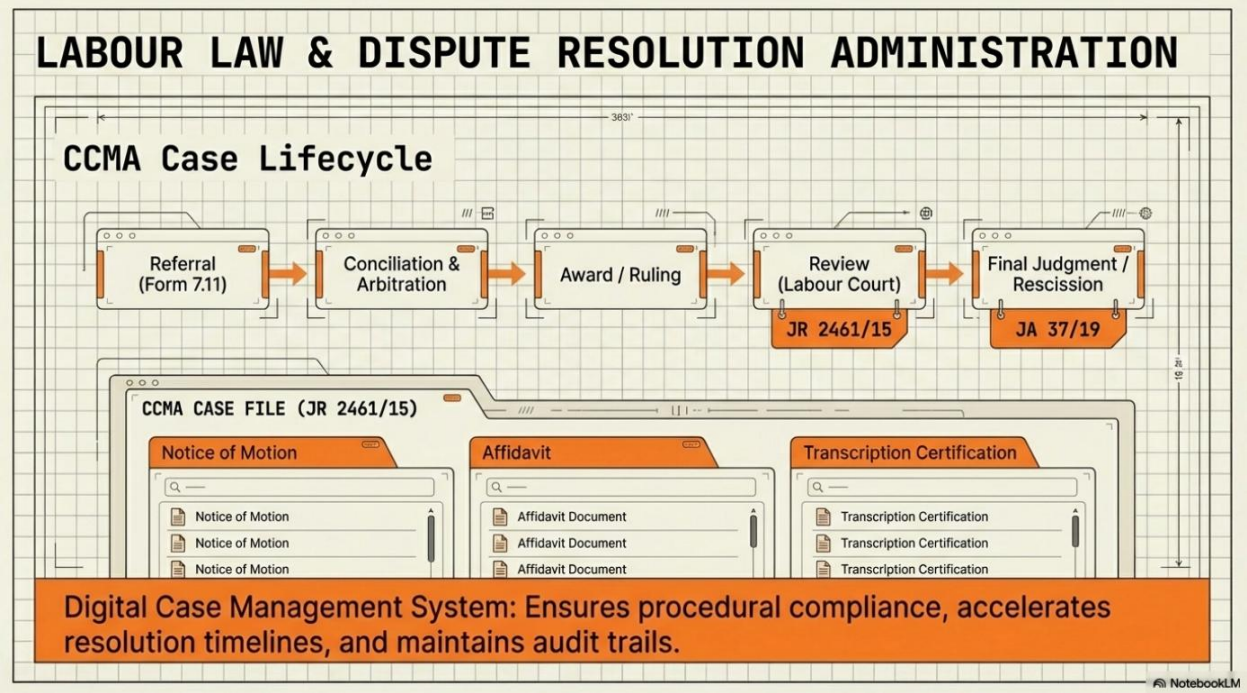

DATABASE MANAGEMENT:
STUDENT REGISTRATION SYSTEM
student name
father name
date of birthday
gender
male
female
course applied
mobile number
email adress
adress
submit
Dynamic Image Load (LoadImage Sub-routine)
Data Validation (ValidEntry Boolean)
VBA to Excel Database Link
TECHNICAL INSIGHT: Automated data capture, real-time validation, and secure database connectivity.
NotebookLM

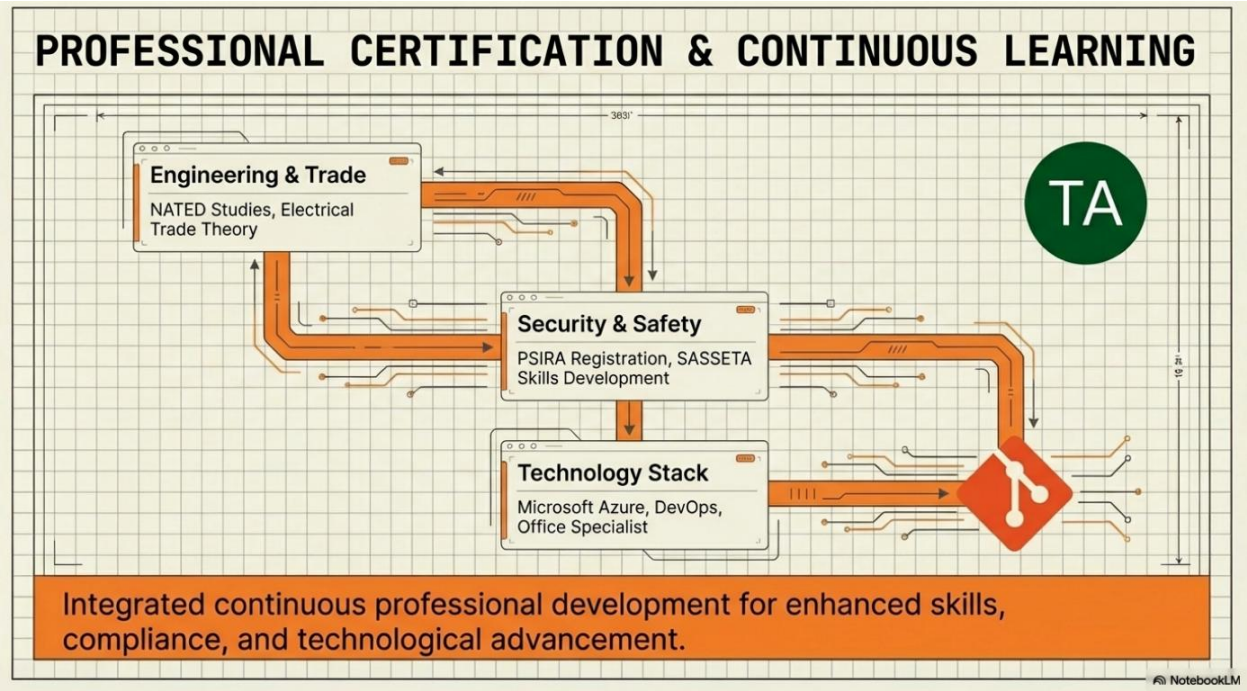
WEB-BASED CRIME MANAGEMENT SYSTEM
The Problem: Manual Records (Samara City / Hillbrow).
Inefficient Data Access
Lost Files
Time-Consuming Retrieval
The Solution: Digital transformation for efficient crime prevention, storage, and retrieval.
TECHNICAL INSIGHT: Secure, centralized data platform for real-time collaboration and analysis.
NotebookLM


OPERATIONAL DOMAIN: LAW ENFORCEMENT PROTOCOLS
Applied Policing and Crime Resolution
Applied Policing
ON
Crime Scene Management
ON
Applications in Law Enforcement
Incident Collision Scenarios
Data
Name
Data
Traffic Safety
Study Material for Police Firearms
Data
Data
Value
Research Methods for Conducting Patrols
Community Engagement
Data
Entry
Cancel
Apply
System architecture informed by Hillbrow Station operational requirements (Detective Services, Shift Command, Sector Policing).
NotebookLM


DIGITIZING LEGAL COMPLIANCE: THE DOMESTIC VIOLENCE ACT
ACT 116 of 1998
LOGIC FLOW
Incoming Case
Relationship = Domestic?
YES
Domestic Violence Protocol (Form 2)
Interim Order
Service by Sheriff
Final Order
Relationship = Stranger/Neighbor?
YES
Harassment Act 17 Protocol
Harassment Order
TECHNICAL INSIGHT: Legal definitions are hard-coded into software logic to ensure procedural correctness and prevent manual errors.
(Detective Services, Shift Command, Sector Policing).
NotebookLM


PRIVACY & DATA SECURITY (POPIA COMPLIANCE)
Purpose Specification
Collection limited to necessary biometrics & criminal history.
POPIA
COMPLIANT
Security Measures
Firewalls, Encryption, & Unauthorized Access Prevention.
Data Subject Rights
Mechanisms for officers/citizens to view and correct stored data.
Automated 'Information Officer' protocols to manage employer liability.
NotebookLM

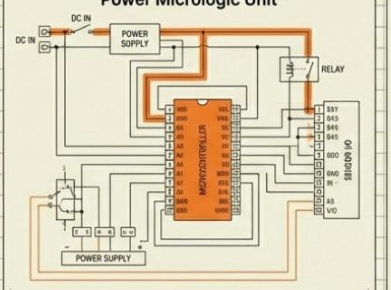

LABOUR LAW & DISPUTE RESOLUTION ADMINISTRATION
CCMA Case Lifecycle
Referral (Form 7.11)
Conciliation & Arbitration
Award / Ruling
Review (Labour Court)
JR 2461/15
Final Judgment / Rescission
JA 37/19
CCMA CASE FILE (JR 2461/15)
Notice of Motion
Notice of Motion
Notice of Motion
Notice of Motion
Affidavit
Affidavit Document
Affidavit Document
Affidavit Document
Transcription Certification
Transcription Certification
Transcription Certification
Transcription Certification
Digital Case Management System: Ensures procedural compliance, accelerates resolution timelines, and maintains audit trails.
NotebookLM


PROFESSIONAL CERTIFICATION & CONTINUOUS LEARNING
Engineering & Trade
NATED Studies, Electrical Trade Theory
TA
Security & Safety
PSIRA Registration, SASSETA Skills Development
Technology Stack
Microsoft Azure, DevOps, Office Specialist
Integrated continuous professional development for enhanced skills, compliance, and technological advancement.
NotebookLM

PROJECT GALLERY: FROM CIRCUIT TO CODE

HARDWARE

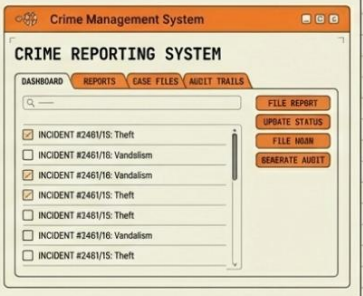
Power Micrologic Unit



LOGIC

```
// ATM PIN Validation Logic
bool validatePIN(int inputPIN, int storedPIN) {
    const int MAX_ATTEMPTS = 3;
    static int attempts = 0;
    if (inputPIN == storedPIN) {
        attempts = 0;
        return true; // Access Granted
    } else {
        attempts++;
        if (attempts >= MAX_ATTEMPTS) {
            lockAccount();
            return false; // Account Locked
        }
        return false; // PIN Incorrect
    }
}
```

INTERFACE



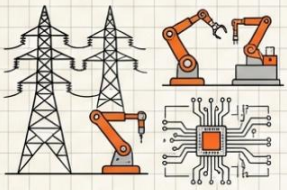
A multidisciplinary approach where hardware constraints inform software design.

NotebookLM

VALUE PROPOSITION: THE INTEGRATED SYSTEMS SPECIALIST

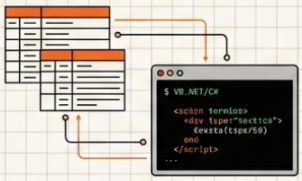
BUILD. CODE. COMPLY.

BUILD:



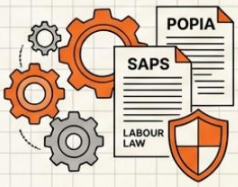
High-voltage infrastructure & industrial automation.

CODE:



Secure, database-driven applications (VB.NET/C#).

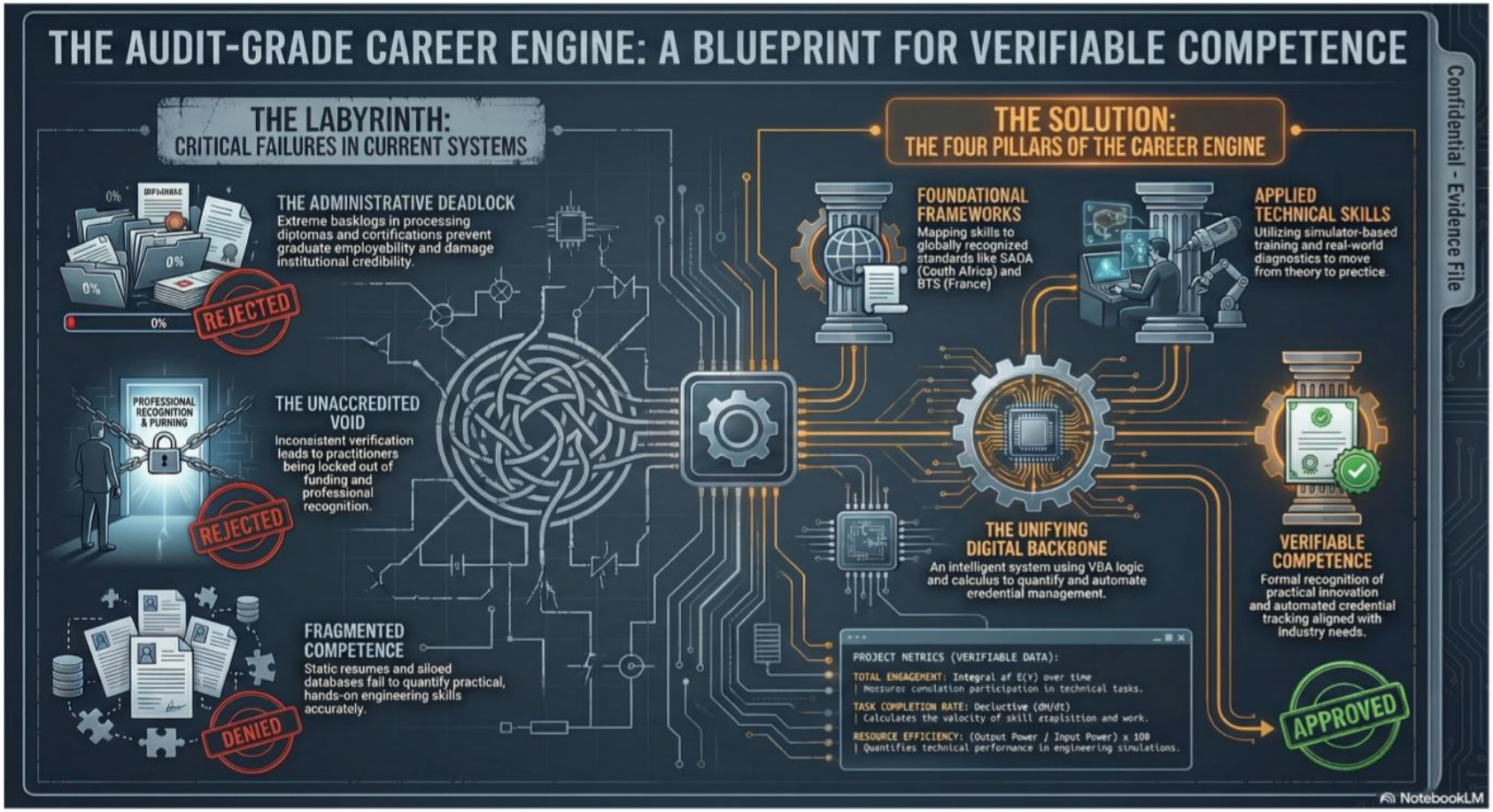
COMPLY:



Systems engineered for POPIA, SAPS, and Labour Law standards.

Ready to deploy secure, compliant, and engineered technical solutions.

NotebookLM


THE AUDIT-GRADE CAREER ENGINE: A BLUEPRINT FOR VERIFIABLE COMPETENCE
THE LABYRINTH:
CRITICAL FAILURES IN CURRENT SYSTEMS
THE ADMINISTRATIVE DEADLOCK
Extreme basklogs in processing diptomas and cortifications prevent graduate employebility and damage institutional credibility.
REJECTED
PROFESSIONAL RECOGNITION & PURNING
THE UNACCREDITED VOID
Inconsistent verification leads to practitioners being locked out of funding and professional recognition.
REJECTED
FRAGMENTED COMPETENCE
Static resumes and siloed databases fail to quantify practical, hands-on engineering skills accurately.
DENIED
THE SOLUTION:
THE FOUR PILLARS OF THE CAREER ENGINE
FOUNDATIONAL FRAMEWORKS
Mapping skills to globally recognized standards like SAOA (Couth Africa) and BTS (France)
APPLIED TECHNICAL SKILLS
Utilizing simulator-based training and real-world diagnostics to move from theory to practice.
THE UNIFYING DIGITAL BACKBONE
An intelligent system using VBA logic and calculus to quantify and automate credential management.
VERIFIABLE COMPETENCE
Formal recognition of practical innovation and automated credential tracking aligned with industry needs.
PROJECT NETRICS (VERIFIABLE DATA):
TOTAL ENGAGEMENT: Integral of E(Y) over time
| Mossuror conulation participation in technical tasks.
TASK COMPLETION RATE: Decluctive (dN/dt)
| Calculates the valocity of skill etaplsition and work.
RESOURCE EFFICIENCY: (Output Power / Input Power) x 100
| Quantifies technical perfornance in engineering simulations.
APPROVED
Confidential - Evidence File
NotebookLM

The Career Engine: A Blueprint for Verifiable Professional Competence

Addresses systemic friction in Technical and Vocational Education and Training (TVET). Replaces static, fragmented resurnes with an automated system using Visual Basic logic and calculus to track, quantify, and map real-world engineering skills to global qualification standards.

THE SYSTEMIC LABYRINTH

The Fragmentation of Competence

Qualifications exist in siloed databases while practical, hands-on skills remain unquantified and unverified.

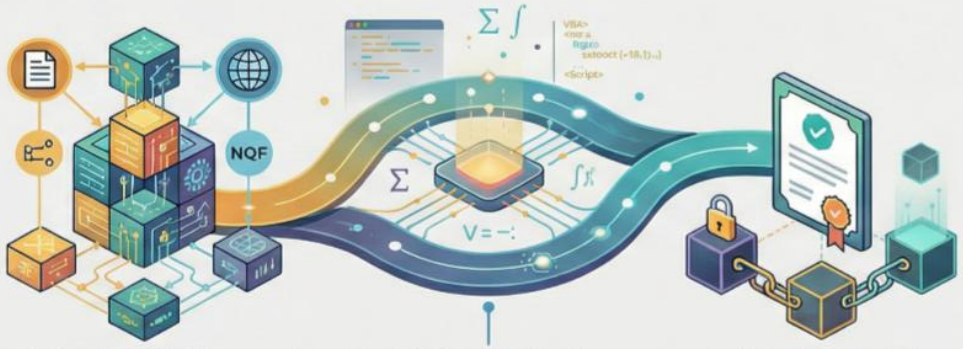
Administrative Deadlocks & Backlogs

Extreme delays in processing results and diplomas provent graduate employability and damage institutional credibility.

The Curriculum-Industry Gap

A disconnect persists between theoretical "trade theory" and the technical needs of modern industry.

THE THREE PILLARS OF THE SOLUTION



Foundational & Applied Frameworks

Mapping local skills to global standards (SAQA, NQF, BTS) using modular, simulator-based training.

The Unifying Digital Backbone

An intelligent layer using VBA logic and calculus to automate reporting and quantify performance.

Audit-Grade Credentialing

Generates verifiable, blockchain-ready outputs that link specific unit standards to demonstrated technical mastery.

S.E.E.E.I.S.U.A. INFRASTRUCTURE METRICS

Annual Energy Index: 3600 kWh

Conflict Lead Management: 70,000 MW

Budget Forecast: R50 Billion

NotebookLM

Understanding Protection Orders in South Africa: Your Legal Path to Safety

The South African legal system provides specific court orders to protect individuals from abuse and harassment. The process is designed to offer immediate, interim protection while the court considers making the order final. Understanding which type of order fits your situation is the first step.

Domestic Violence Protection Order (DPO)

For abuse from someone you have a domestic relationship with (e.g., family, partner, roommate).

Relationship Required?
Yes, a domestic relationship is required.

Pattern of Abuse?
Requires a pattern of abusive actions.

Examples:
Physical, sexual, financial, emotional abuse.

Which Protection Order Do You Need?

Harassment Protection Order (HPO)

For abuse from someone you are not in a domestic relationship with (e.g., a neighbor).

Relationship Required?
No relationship is required.

Pattern of Abuse?
A single incident can be sufficient.

Examples:
Unwanted messages, stalking, financial harm.

The 4-Step Process to Get a Protection Order

1. Apply at the Magistrate's Court
Complete the required application form (Form 2) with a detailed affidavit explaining the abuse.

2. Obtain an Interim Order
The court reviews your application and may issue a temporary order for immediate protection.

3. Serve the Order
The interim order must be officially served on the respondent by a sheriff or police officer.

4. Attend the Court Hearing
The court hears evidence to decide whether to grant a permanent, final protection order.

What if the Order is Violated?

Breaching a protection order is a criminal offense punishable by a fine or up to 5 years in prison.

NotebookLM

Understanding Protection Orders in South Africa: Your Legal Path to Safety

The South African legal system provides specific court orders to protect individuals from abuse and harassment. The process offers immediate, interim protection while the court considers making the order final. Understanding which type of order fits your situation is the first step.

WHICH PROTECTION ORDER DO YOU NEED?

DOMESTIC VIOLENCE PROTECTION ORDER (DPO)

For abuse from someone you have a domestic relationship with (e.g., family, partner, roommate).

HARASSMENT PROTECTION ORDER (HPO)

For abuse from someone you are not in a domestic relationship with (e.g., a neighbor).

KEY DIFFERENCES

DPO		HPO
Yes, a domestic relationship is required.	RELATIONSHIP REQUIRED?	No relationship is required.
Requires a pattern of abusive actions.	PATTERN OF ABUSE?	A single incident can be sufficient.
Physical, sexual, financial, emotional abuse.	EXAMPLES	Unwanted messages, stalking, financial harm.

THE 5-STEP PROCESS TO GET A PROTECTION ORDER

1. APPLY AT THE MAGISTRATE'S COURT

Complete the required application form (Form 2) with a detailed affidavit explaining the abuse.

2. OBTAIN AN INTERIM ORDER

The court reviews your application and may issue a temporary order for immediate protection.

3. SERVE THE ORDER

The interim order must be officially served on the respondent by a sheriff or police officer.

4. ATTEND THE COURT HEARING

The court hears evidence to decide whether to grant a permanent, final protection order.

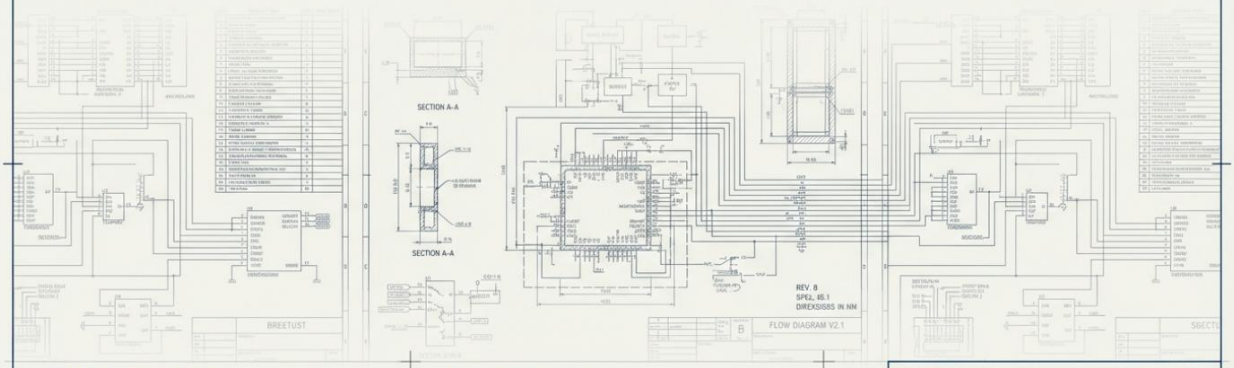
WHAT IF THE ORDER IS VIOLATED?

Breaching a protection order is a criminal offense punishable by a fine or up to 5 years in prison.

NotebookLM

The Audit-Grade Career Engine

A Blueprint for Verifiable Competence in a Broken System



NARRATIVE PREMISE:
How do we validate expertise when the bureaucratic system is designed to reject it?

SYSTEM DEFINITION:
A modular framework that synthesizes Formal Education, Vocational Training, and Workplace Experience into a single, auditable, and immutable system.

AUTHOR: Tshingombe Tshitadi Fiston

ROLE: National-grade Curriculum Architect & Technical Educator

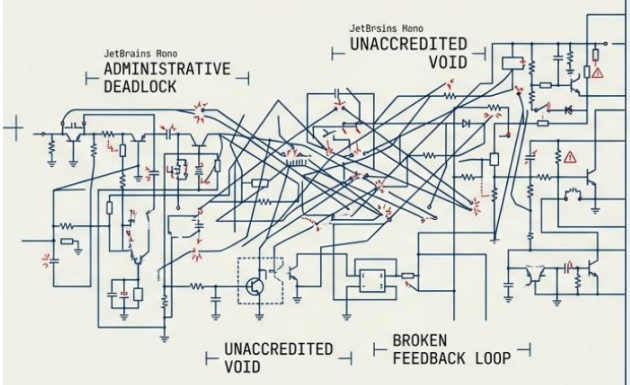
DOCUMENT TYPE:
System Architecture & Case Study

NotebookLM

THE DISCONNECTED CIRCUIT: FRICTION IN TECHNICAL EDUCATION

JetBrains Mono

THE LABYRINTH



THE EVIDENCE

Case Closed:
Formal evaluation denied due to policy misalignment.
IRREGULARITY DETECTED
Non credible
External examination certifstion refused by SAQA.
Non credible process:
External examination certification refused by SAQA.
slow to release result:
Candidate engineering examination results delayed indefinitely.

JetBrains Mono

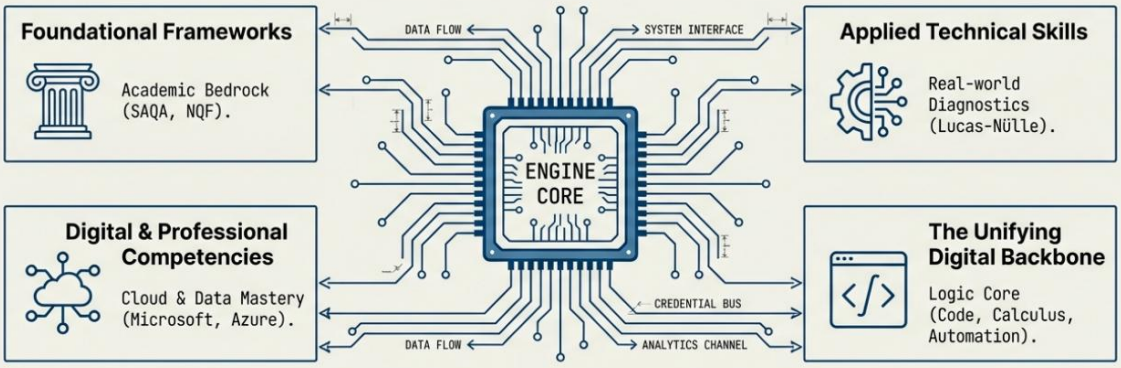
DIAGNOSTIC INSIGHT

When the system is flawed, expertise is forged in navigating its complexities. This friction is not just a barrier; it is the diagnostic data used to build a better solution.

NotebookLM

A New Paradigm: The Integrated Credentialing Engine

From static resumes to dynamic, data-driven audit trails.



A modular system that maps every skill, qualification, and experience to a verifiable data point, generating audit-grade documentation for bodies like SAQA, AIU, and ASIC.

NotebookL

Bridging Theory and Diagnostics

PILLAR 01: THEORY

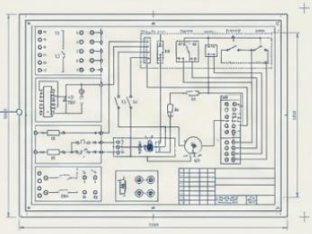
JetBrains Mono

SAQA & NQF Alignment

National Certificate: Electrical Engineering (ID 72071)
Global Portability: Alignment with French BTS (Brevet de Technicien Supérieur).
Competency Block: RNCP41007BC01 - Preliminary study and design.

PILLAR 02: PRACTICE

JetBrains Mono



Simulation & Diagnostics

Hardware: Lucas-Nülle UnitTrain & InTrain Systems.
Curriculum: NIMI Electrician Trade (NSQF Level 5).
Module 3 Focus: Wires, Joints, U.G. Cables (125 Hrs).

THE TAKEAWAY: The Engine ensures that a certified engineer has not just passed a test, but has physically diagnosed faults and designed installations.

NotebookLM

The Digital Backbone & Automation Layer

Pillars 3 & 4

Digital Competencies

Salesforce Career Pathways: Technical Architect, API Integration.

Microsoft Learn: Data Engineering on Azure, Synapse Serverless SQL.

Advanced Computing: Spatial Computing in Telecoms, Big Data (Hadoop, Spark).

The Logic Core (VBA Automation)

VBA MODULE

```
Type CalculationRecord
    DateStamp As Date
    MethodUsed As String
    SimulationTool As String
    ResultSummary As String
End Type
```

Code structures national curricula into modules, automatically calculating promotion marks.

NotebookLM

Quantifying Performance with Code and Calculus

We don't guess competence. We calculate it.

Total Engagement / Effort

$$E_{\text{total}} = \int_0^T E(t)dt$$

Wind Energy Harvested

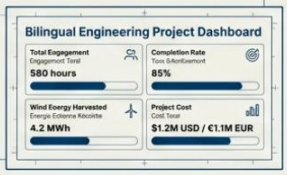
$$E = \int_0^T \frac{1}{2}\rho A v^3 \eta dt$$

Project Cost Aggregation

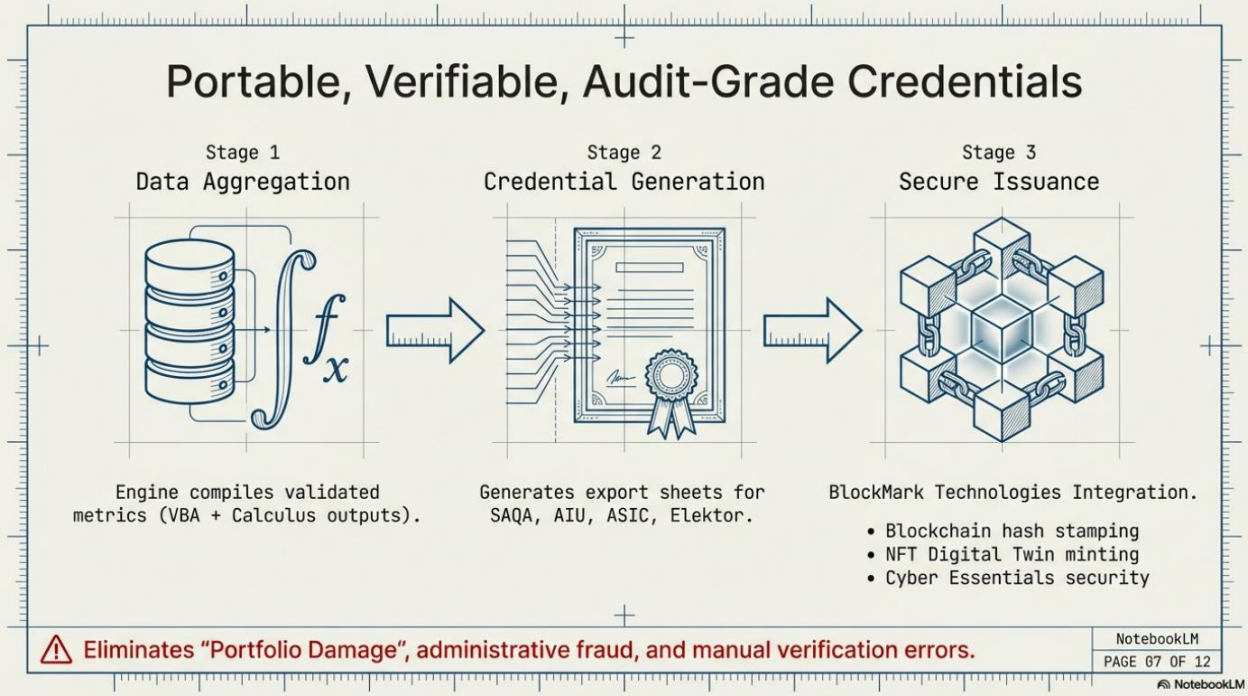
$$C_{\text{total}} = \sum (M_{\text{material}} + H_{\text{human}} + S_{\text{stationery}} + B_{\text{building}})$$

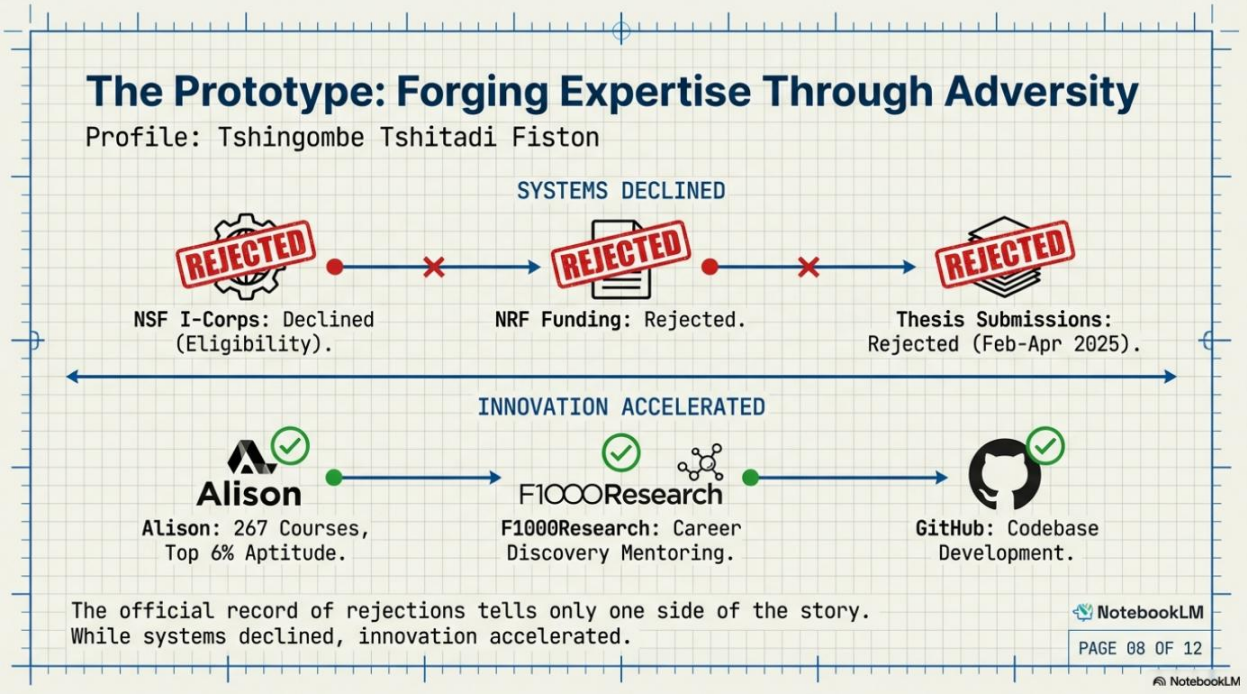
Rate of Task Completion

$$\frac{dN}{dt}$$



NotebookLM


Portable, Verifiable, Audit-Grade Credentials
Stage 1
Data Aggregation
Stage 2
Credential Generation
Stage 3
Secure Issuance
Engine compiles validated metrics (VBA + Calculus outputs).
Generates export sheets for SAQA, AIU, ASIC, Elektor.
BlockMark Technologies Integration.
• Blockchain hash stamping
• NFT Digital Twin minting
• Cyber Essentials security
Eliminates "Portfolio Damage", administrative fraud, and manual verification errors.
NotebookLM
PAGE 07 OF 12
NotebookLM


The Prototype: Forging Expertise Through Adversity
Profile: Tshingombe Tshitadi Fiston
SYSTEMS DECLINED
REJECTED
REJECTED
REJECTED
NSF I-Corps: Declined (Eligibility).
NRF Funding: Rejected.
Thesis Submissions: Rejected (Feb-Apr 2025).
INNOVATION ACCELERATED
Alison
F1000Research
Alison: 267 Courses, Top 6% Aptitude.
F1000Research: Career Discovery Mentoring.
GitHub: Codebase Development.
The official record of rejections tells only one side of the story.
While systems declined, innovation accelerated.
NotebookLM
PAGE 08 OF 12
NotebookLM

Multidisciplinary Expertise in Action

ENGINEERING

- Smart Grids & Rural Energy.
- Microgrid optimization.
- Kirchhoff's fault law analysis.
- Induction motor torque-speed characteristics.

PEDAGOGY

- Curriculum Design (Basic Equipment Maintenance).
- LMS Integration (Blackboard/Schoology).
- Experiential learning frameworks.

POLICY

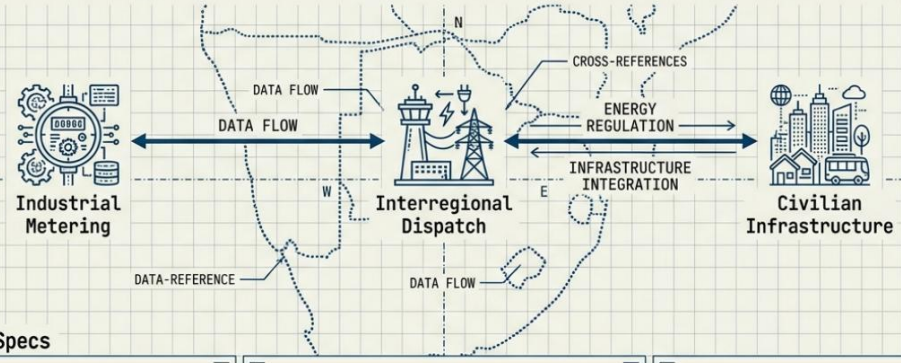
- Regulatory Framework Analysis.
- SAQA/DHET/QCTO scope study.
- Resolution of 'Irregularity' notices.
- Proposal for Unified Framework.

NotebookLM

PAGE 09 NotebookLM

Scaling Up: The S.E.E.E.I.S.U.A. Framework

Support for Energy-Efficient Electrical & Industrial Systems **in South Union Africa**



Technical Specs

SCOPE: Interregional energy regulation, dispatching, and conflict resolution.

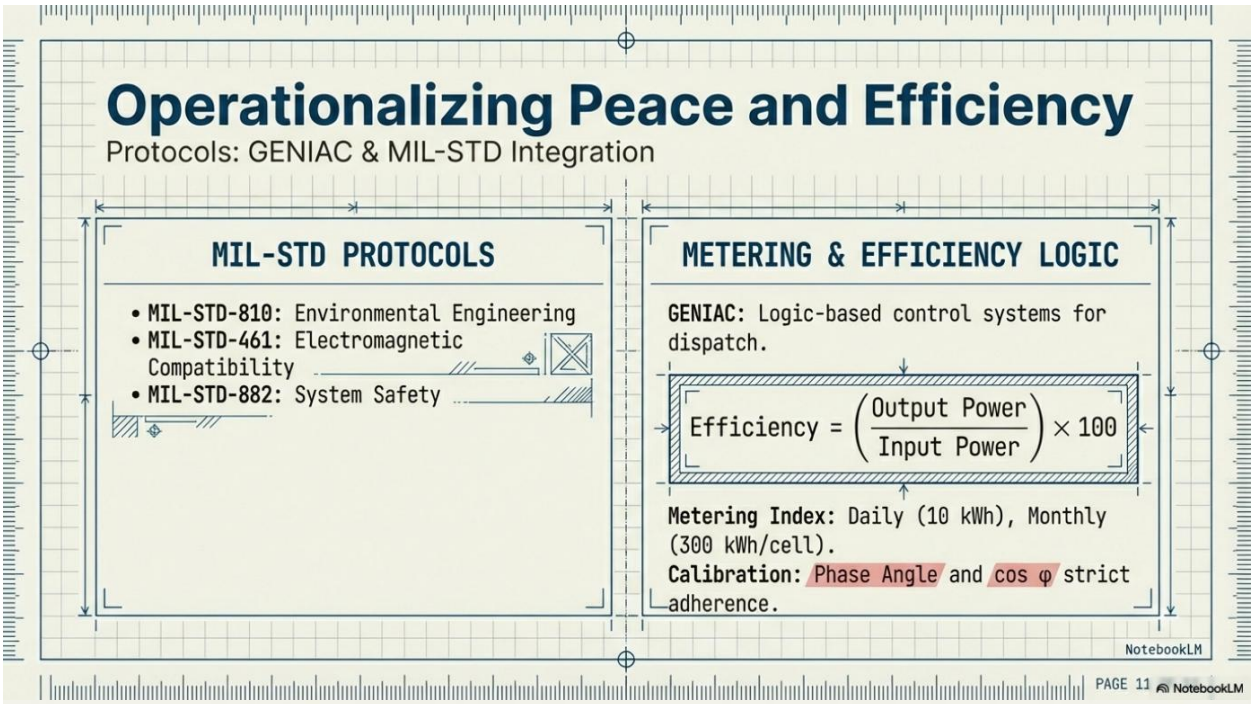
THE CONFLICT LOAD: Addressing 70,000 MW of discrepancies caused by metering errors.

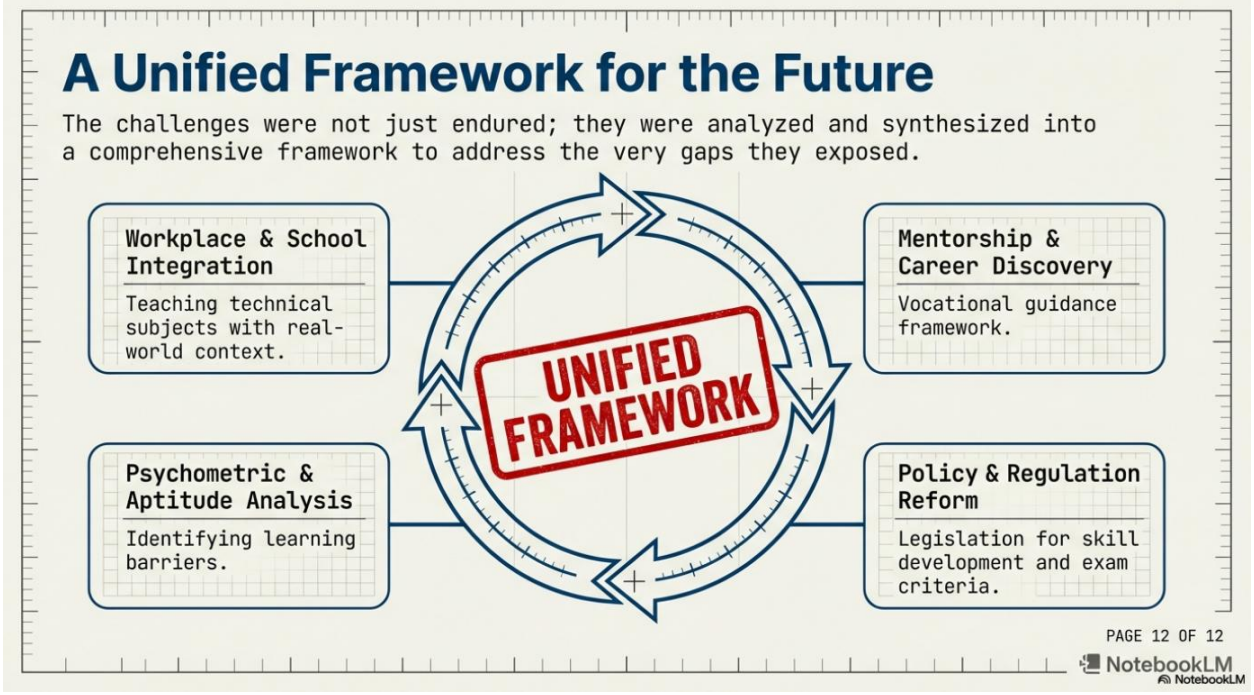
BUDGET FORECAST: R50 billion infrastructure modernization.

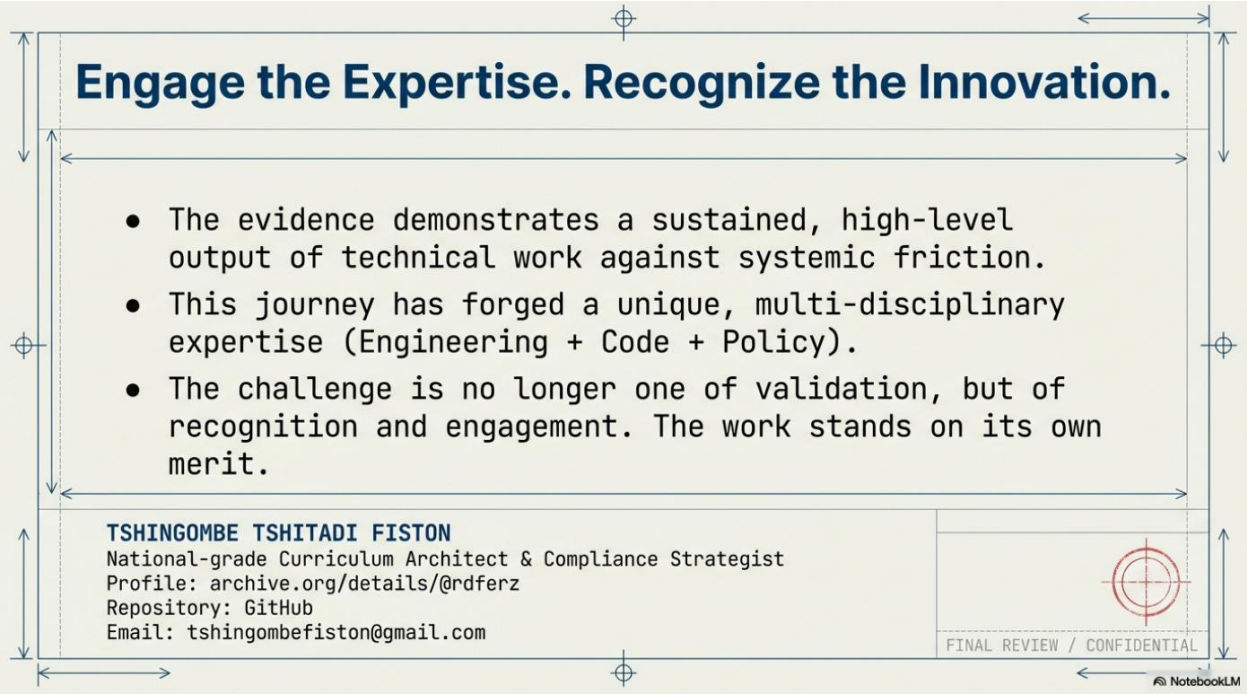
GOAL: Harmonized energy governance under a peace-driven initiative.

NotebookLM

PAGE 10 NotebookLM


Operationalizing Peace and Efficiency
Protocols: GENIAC & MIL-STD Integration
MIL-STD PROTOCOLS
• MIL-STD-810: Environmental Engineering
• MIL-STD-461: Electromagnetic Compatibility
• MIL-STD-882: System Safety
METERING & EFFICIENCY LOGIC
GENIAC: Logic-based control systems for dispatch.
Efficiency = (Output Power / Input Power) × 100
Metering Index: Daily (10 kWh), Monthly (300 kWh/cell).
Calibration: Phase Angle and cos φ strict adherence.
NotebookLM
PAGE 11
NotebookLM


A Unified Framework for the Future
The challenges were not just endured; they were analyzed and synthesized into a comprehensive framework to address the very gaps they exposed.
Workplace & School Integration
Teaching technical subjects with real-world context.
Mentorship & Career Discovery
Vocational guidance framework.
UNIFIED FRAMEWORK
Psychometric & Aptitude Analysis
Identifying learning barriers.
Policy & Regulation Reform
Legislation for skill development and exam criteria.
PAGE 12 OF 12
NotebookLM
NotebookLM


Engage the Expertise. Recognize the Innovation.
The evidence demonstrates a sustained, high-level output of technical work against systemic friction.
This journey has forged a unique, multi-disciplinary expertise (Engineering + Code + Policy).
The challenge is no longer one of validation, but of recognition and engagement. The work stands on its own merit.
TSHINGOMBE TSHITADI FISTON
National-grade Curriculum Architect & Compliance Strategist
Profile: archive.org/details/@rdferz
Repository: GitHub
Email: tshingombefiston@gmail.com
FINAL REVIEW / CONFIDENTIAL
NotebookLM

The Unified Mastery Engine: A Blueprint for Verifiable Professional Expertise

The Professional Mastery System is an audit-grade "Engine" designed to track an individual's career development. It bridges the gap between theoretical knowledge and professional assets by integrating three Interconnected pillars: The Didactic Core, The Applied Engine, and the Credentialing & IP Hub.

Pillar 1: The Didactic Core

A library of modular curricula covering technical fields mapped to national qualification standards.

Pillar 2: The Applied Engine

Converts theory into measurable outcomes through project-based work, simulations, and quantitative analysis.

Pillar 3: The Credentialing & IP Hub

Finalizes achievement through blockchain-ready digital certificates and a structured path to patenting innovations.

Key Value Propositions

Audit-Grade Traceability

Provides a verifiable record from the initial lesson plan to the final professional credential.

Integrated Simulation Ecosystem

Connects directly with hardware/software platforms like UniTrain for hands-on, certified skill validation.

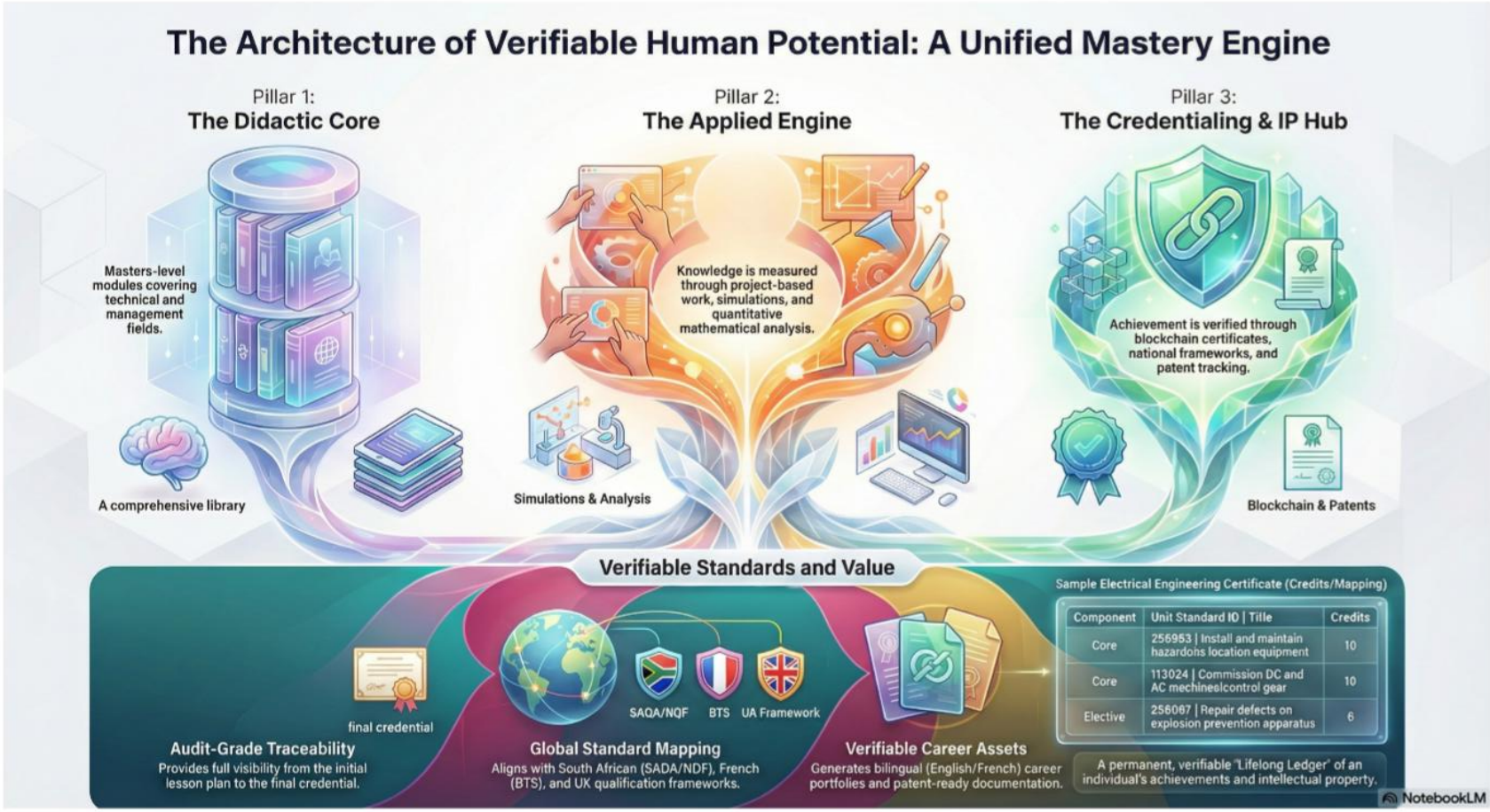
The Lifelong Ledger

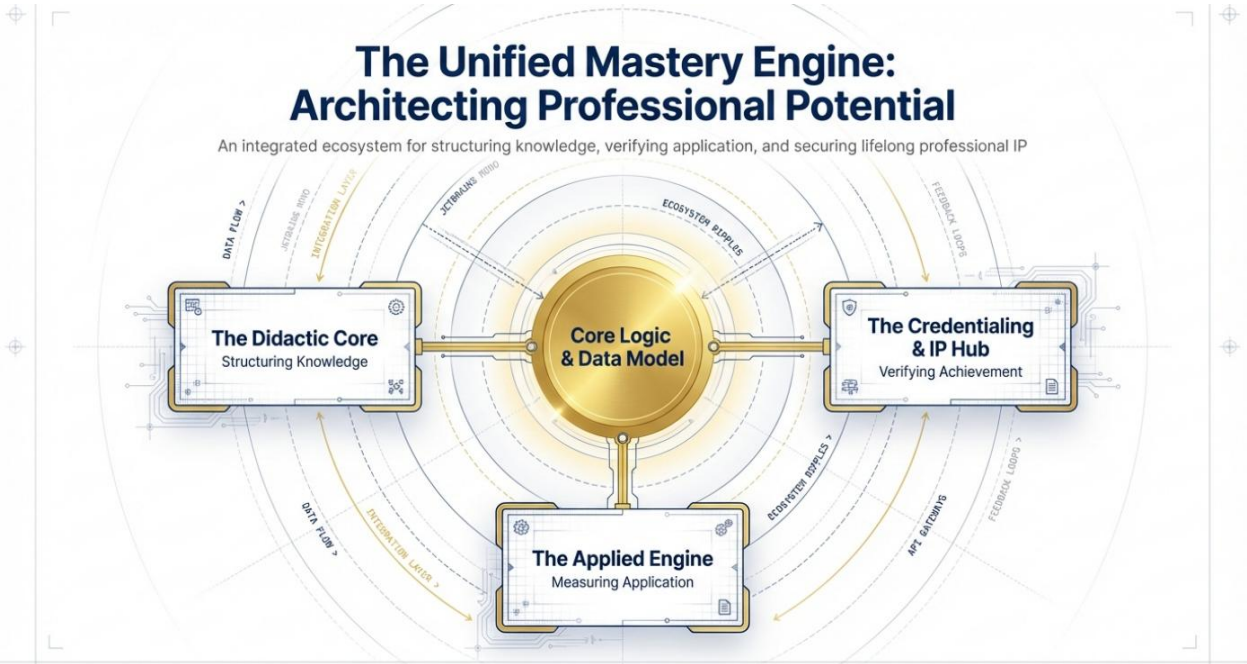
A dynamic, permanent record of an individual's knowledge, skills, and innovative contributions.

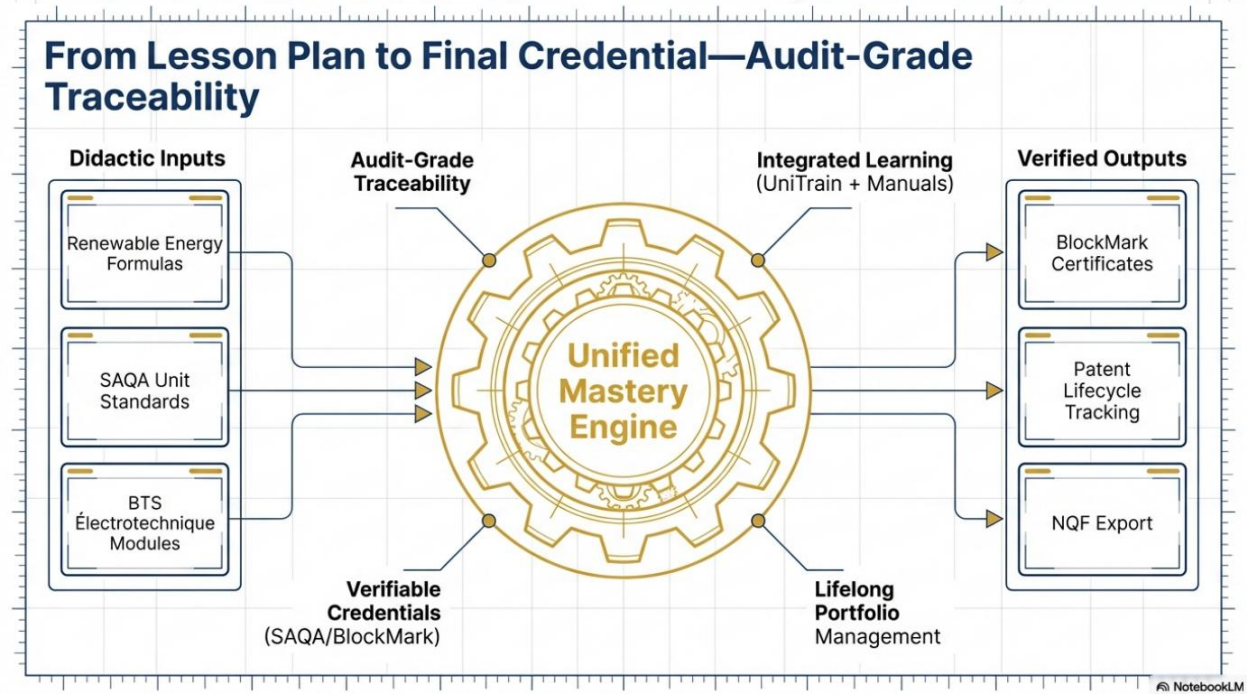
Cost Structure for Issuing Verifiable Blockchain-Ready Certificates

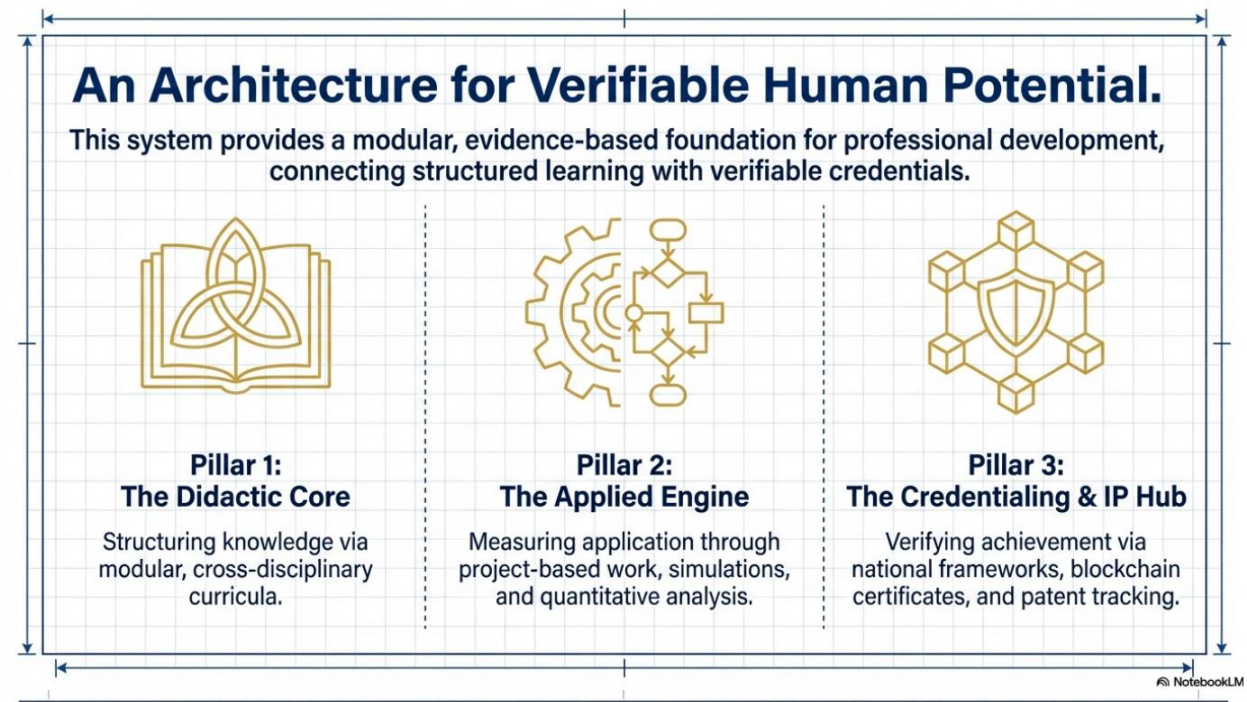
Item	Price (Credits)	Paid By
Certificate with Expiry Date	£1 (100) per year	Issuer
Non-Expiring Certificate	£10 (1000)	Issuer
Hash Stamp on Blockchain	£1 (100)	Issuer

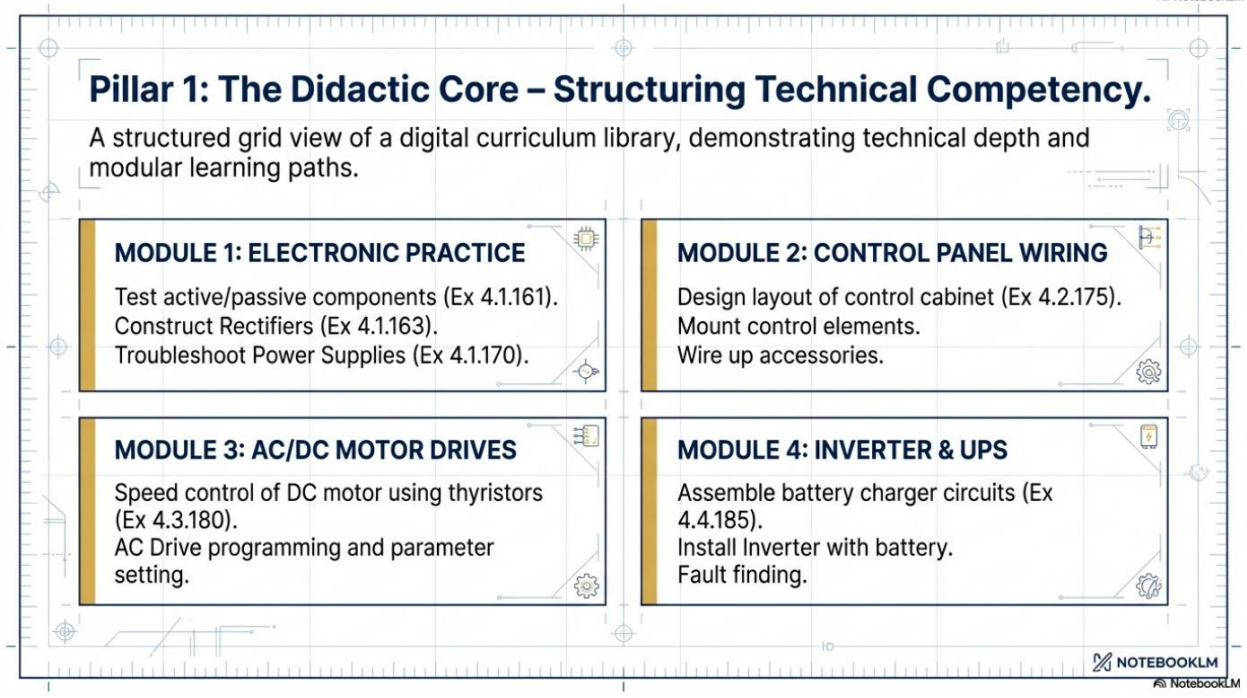
NotebookLM

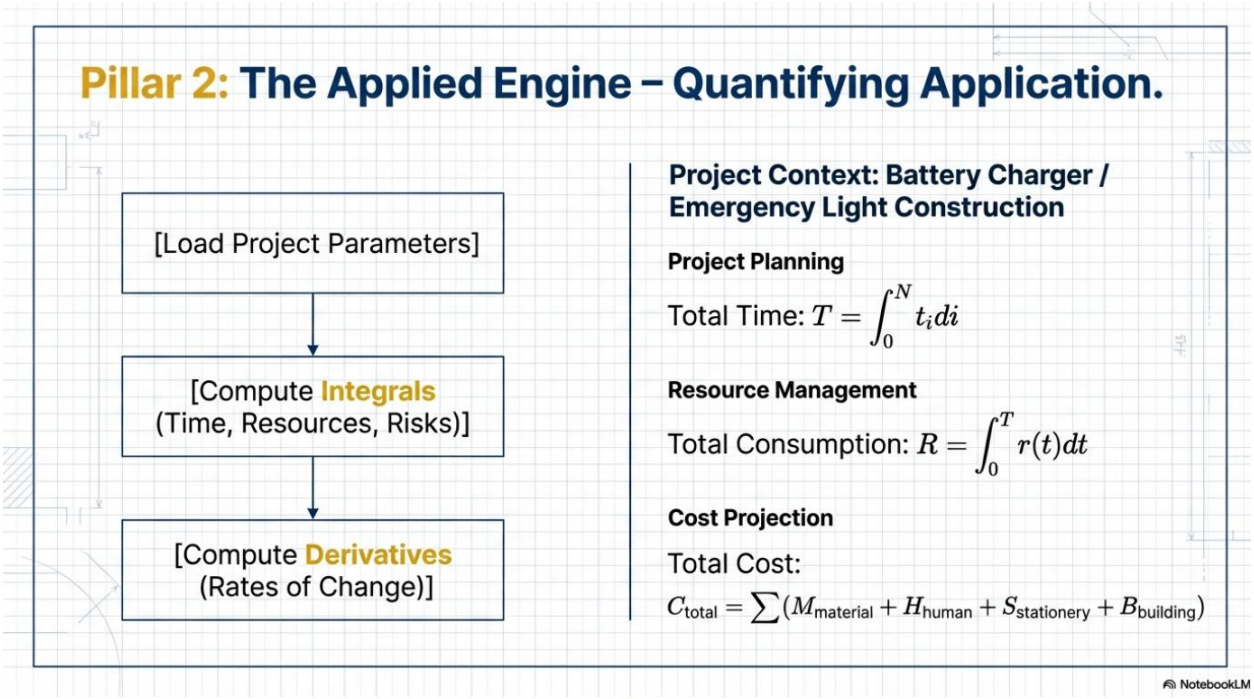

The Architecture of Verifiable Human Potential: A Unified Mastery Engine
Pillar 1:
The Didactic Core
Masters-level modules covering technical and management fields.
A comprehensive library
Pillar 2:
The Applied Engine
Knowledge is measured through project-based work, simulations, and quantitative mathematical analysis.
Simulations & Analysis
Pillar 3:
The Credentialing & IP Hub
Achievement is verified through blockchain certificates, national frameworks, and patent tracking.
Blockchain & Patents
Verifiable Standards and Value
final credential
Audit-Grade Traceability
Provides full visibility from the initial lesson plan to the final credential.
SAQA/NQF
BTS
UA Framework
Global Standard Mapping
Aligns with South African (SADA/NDF), French (BTS), and UK qualification frameworks.
Verifiable Career Assets
Generates bilingual (English/French) career portfolies and patent-ready documentation.
Sample Electrical Engineering Certificate (Credits/Mapping)
Component | Unit Standard ID | Title | Credits
Core | 256953 | Install and maintain hazardons location equipment | 10
Core | 113024 | Commission DC and AC machineslcontrol gear | 10
Elective | 256067 | Repair defects on explosion prevention apparatus | 6
A permanent, verifiable "Lifelong Ledger" of an individual's achievements and intellectual property.
NotebookLM

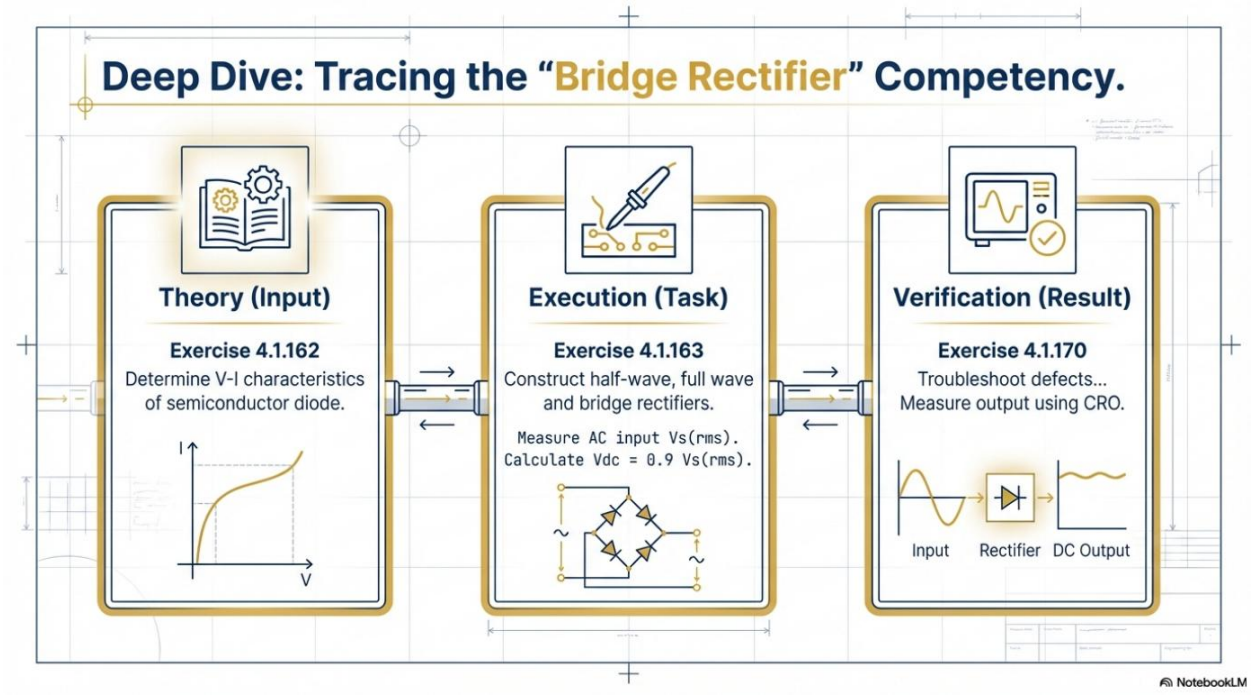

The Unified Mastery Engine:
Architecting Professional Potential
An integrated ecosystem for structuring knowledge, verifying application, and securing lifelong professional IP
The Didactic Core
Structuring Knowledge
Core Logic
& Data Model
The Credentialing
& IP Hub
Verifying Achievement
The Applied Engine
Measuring Application
SYSTEM DEFINITION: AUDIT-GRADE TRACKING // ENG-EDU-ENERGY-PUBLIC_SERVICE
NotebookLM


From Lesson Plan to Final Credential—Audit-Grade Traceability
Didactic Inputs
Renewable Energy Formulas
SAQA Unit Standards
BTS Électrotechnique Modules
Audit-Grade Traceability
Integrated Learning
(UniTrain + Manuals)
Unified Mastery Engine
Verifiable Credentials
(SAQA/BlockMark)
Lifelong Portfolio Management
Verified Outputs
BlockMark Certificates
Patent Lifecycle Tracking
NQF Export
NotebookLM


An Architecture for Verifiable Human Potential.
This system provides a modular, evidence-based foundation for professional development, connecting structured learning with verifiable credentials.
Pillar 1:
The Didactic Core
Structuring knowledge via modular, cross-disciplinary curricula.
Pillar 2:
The Applied Engine
Measuring application through project-based work, simulations, and quantitative analysis.
Pillar 3:
The Credentialing & IP Hub
Verifying achievement via national frameworks, blockchain certificates, and patent tracking.
NotebookLM


Pillar 1: The Didactic Core – Structuring Technical Competency.
A structured grid view of a digital curriculum library, demonstrating technical depth and modular learning paths.
MODULE 1: ELECTRONIC PRACTICE
Test active/passive components (Ex 4.1.161).
Construct Rectifiers (Ex 4.1.163).
Troubleshoot Power Supplies (Ex 4.1.170).
MODULE 2: CONTROL PANEL WIRING
Design layout of control cabinet (Ex 4.2.175).
Mount control elements.
Wire up accessories.
MODULE 3: AC/DC MOTOR DRIVES
Speed control of DC motor using thyristors (Ex 4.3.180).
AC Drive programming and parameter setting.
MODULE 4: INVERTER & UPS
Assemble battery charger circuits (Ex 4.4.185).
Install Inverter with battery.
Fault finding.
NOTEBOOKLM
NotebookLM


Pillar 2: The Applied Engine – Quantifying Application.
[Load Project Parameters]
[Compute Integrals (Time, Resources, Risks)]
[Compute Derivatives (Rates of Change)]
Project Context: Battery Charger / Emergency Light Construction
Project Planning
Total Time: $T = \int_0^N t_i di$
Resource Management
Total Consumption: $R = \int_0^T r(t) dt$
Cost Projection
Total Cost:
$C_{\text{total}} = \sum (M_{\text{material}} + H_{\text{human}} + S_{\text{stationery}} + B_{\text{building}})$
NotebookLM


Deep Dive: Tracing the "Bridge Rectifier" Competency.
Theory (Input)
Exercise 4.1.162
Determine V-I characteristics of semiconductor diode.
I
V
Execution (Task)
Exercise 4.1.163
Construct half-wave, full wave and bridge rectifiers.
Measure AC input Vs(rms).
Calculate Vdc = 0.9 Vs(rms).
Verification (Result)
Exercise 4.1.170
Troubleshoot defects...
Measure output using CRO.
Input
Rectifier
DC Output
NotebookLM

The Engine's Source Code: Verifiable Logic in Visual Basic

Connecting robust VBA automation to fundamental physics principles.

Module: RenewableEnergy.bas — JetBrains Mono

```
' Renewable Energy: Wind Harvest
Function WindEnergyHarvest(rho, A, v, eta, duration) As Double
    WindEnergyHarvest = 0.5 * rho * A * (v ^ 3) * eta * duration
End Function

' Estimate Total Project Cost
"Material: " & FormatCurrency(entry.MaterialCost)
```

Underlying Physics

Ohm's Law: $V = I \times R$

Power: $P = V \times I$

Ripple Factor: $\mathrm{Gamma} = \frac{V_{\mathrm{ac(rms)}}}{V_{\mathrm{dc}}}$

Wind Energy: $E = \int \left(\frac{1}{2}\rho A v^3 \eta\right) dt$

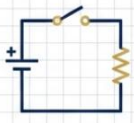
All calculations are based on established engineering principles.

Technical Blueprint meets Executive Dashboard

NotebookLM

Digital Twinning: Bridging Didactics and Practice

The UniTrain-I and InsTrain Simulation Environment: Connecting hands-on platforms for logged and certified practical skills.



DC Technology (Ex 4.1.161)

AC Technology

Three-Phase Motors (Ex 4.2.175)

Building Automation

UniTrain Simulation Tracker

```
' Module: UniTrainICredentialTracker
Type UniTrainTrainee
    Name As String
    CourseCode As String
    DC_Module As Boolean
    ThreePhase_Module As Boolean
    FaultsResolved As Integer ' Tracks fault simulation
    CertificationStatus As String
End Type
```

NotebookLM

Pillar 3: The Credentialing Hub – Mapping to National Standards

SAQA ID 63790: National Certificate: Electrical Engineering (NQF Level 3, 133 Credits)			
Type	Unit ID	**Title**	Credits
Core	258963	Install, test and maintain electrical equipment in a hazardous location	10
Core	113924	Install and commission DC and AC machines and control gear	10
Elective	259097	Carry out a detailed inspection and repair defects on explosion prevention apparatus	6

NotebookLM

International Interoperability: The French BTS Electrotechnics Standard.

Mapping professional activities and competencies between the French BTS standard and the system's certified English modules, ensuring global alignment and credentialing.

Professional Activities (France)	Mapped System Competency (English)
• Conception - étude détaillée du projet	• Design layout of control cabinet (Ex 4.2.175)
• Réalisation : installation – intégration	• Carryout wiring of control cabinet (Ex 4.2.176)
• Réaliser un diagnostic de performance	• Test the control panel for its performance (Ex 4.2.179)

954

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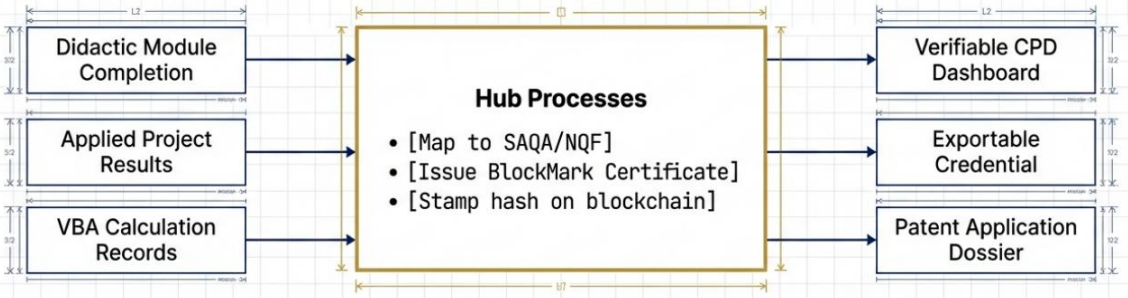
The Mechanics of Verification: Blockchain-Ready Credentials

The system integrates with third-party services like BlockMark Technologies to issue secure, verifiable digital certificates. This process supports both expiring (e.g., annual CPD) and non-expiring credentials, with options for premium blockchain features.



BlockMark Integration

Item	Price (credits)	Paid for by
Stamp a hash of an issued certificate on blockchain	£1 (100 credits)	Issuer

NotebookLM

From Research to Asset: A Structured Path to Patentability.

Beyond credentials, the hub manages the lifecycle of intellectual property. It aligns with international patent standards, tracking research methodology and assessing inventions against key criteria to create an audit-ready trail for patent applications.

Patentability Criteria

Novelty: Not publicly disclosed before filing.

Utility: Must function and serve a useful purpose (Verified by Ex 4.3.182).

Inventive Step: Not obvious to a skilled professional in the field.

VBA Logic for Patent Tracking

```
Type ResearchPatentProject
    ProjectID As String
    ScopeDefined As Boolean
    PatentNovelty As Boolean
    PatentUtility As Boolean
    PatentInventiveStep As Boolean
    PatentFiled As Boolean
End Type
```

Example Project: Universal Motor Speed Controller using SCR.

Reference: `URFIST Paris` patent tutorials and `Espacenet` database for prior art searches.

NotebookLM 955

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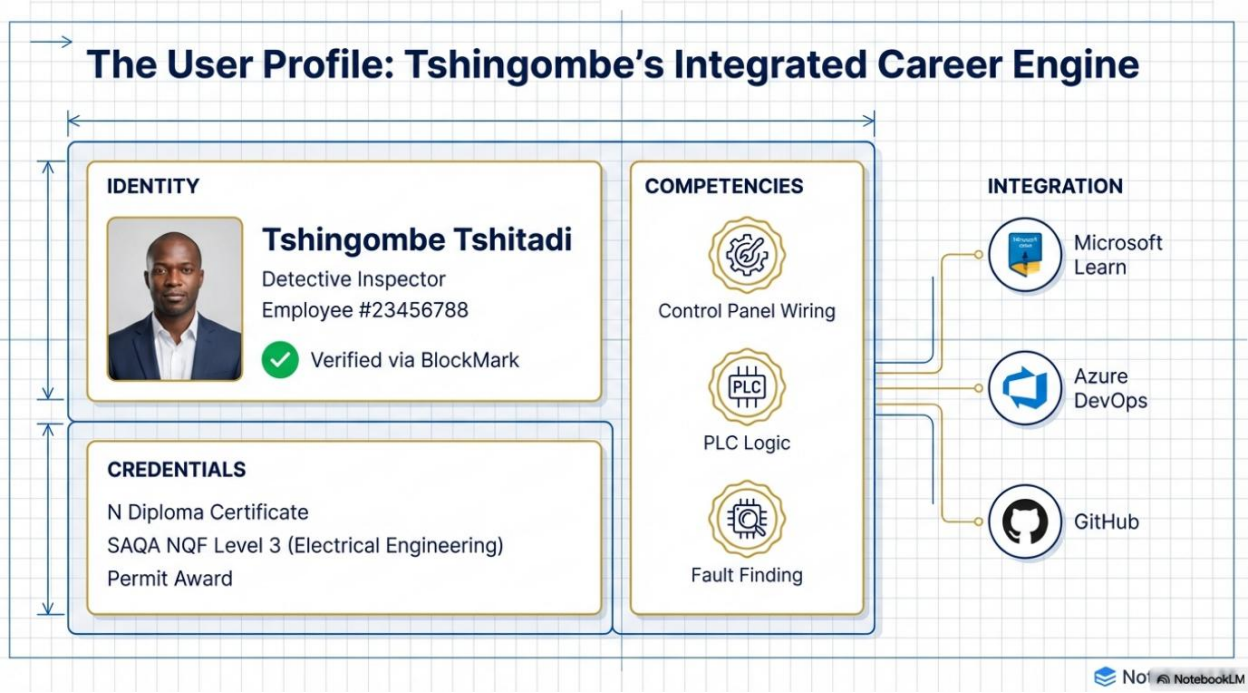
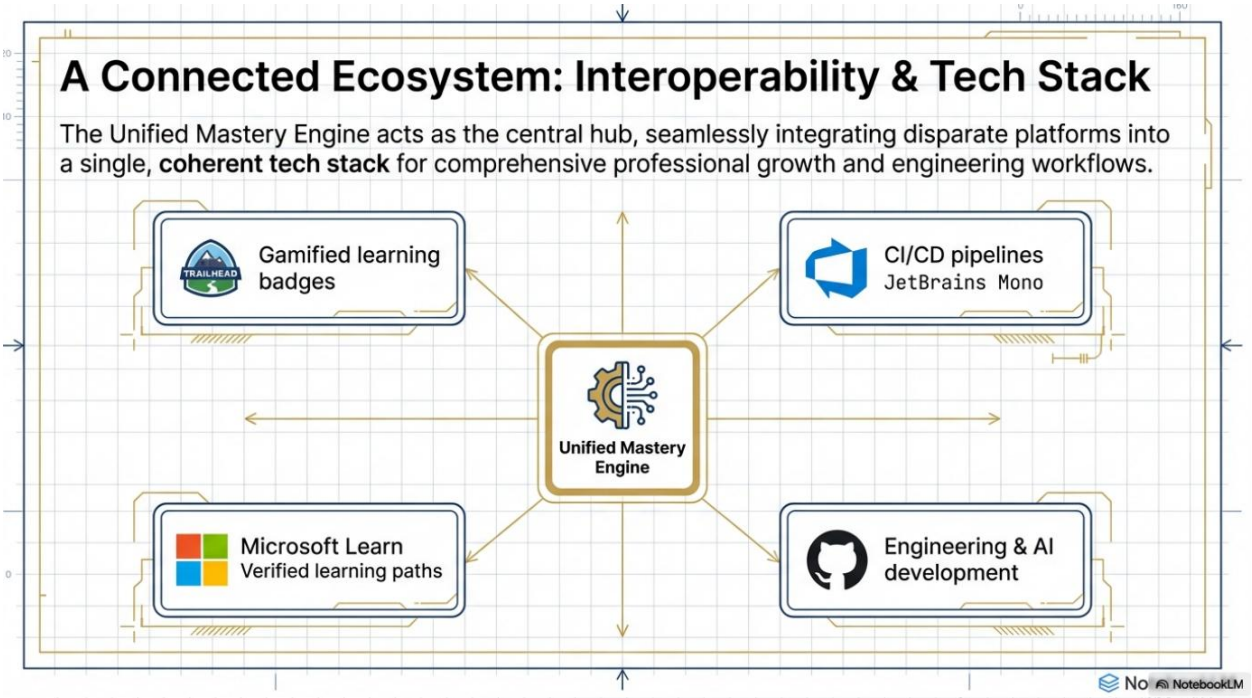
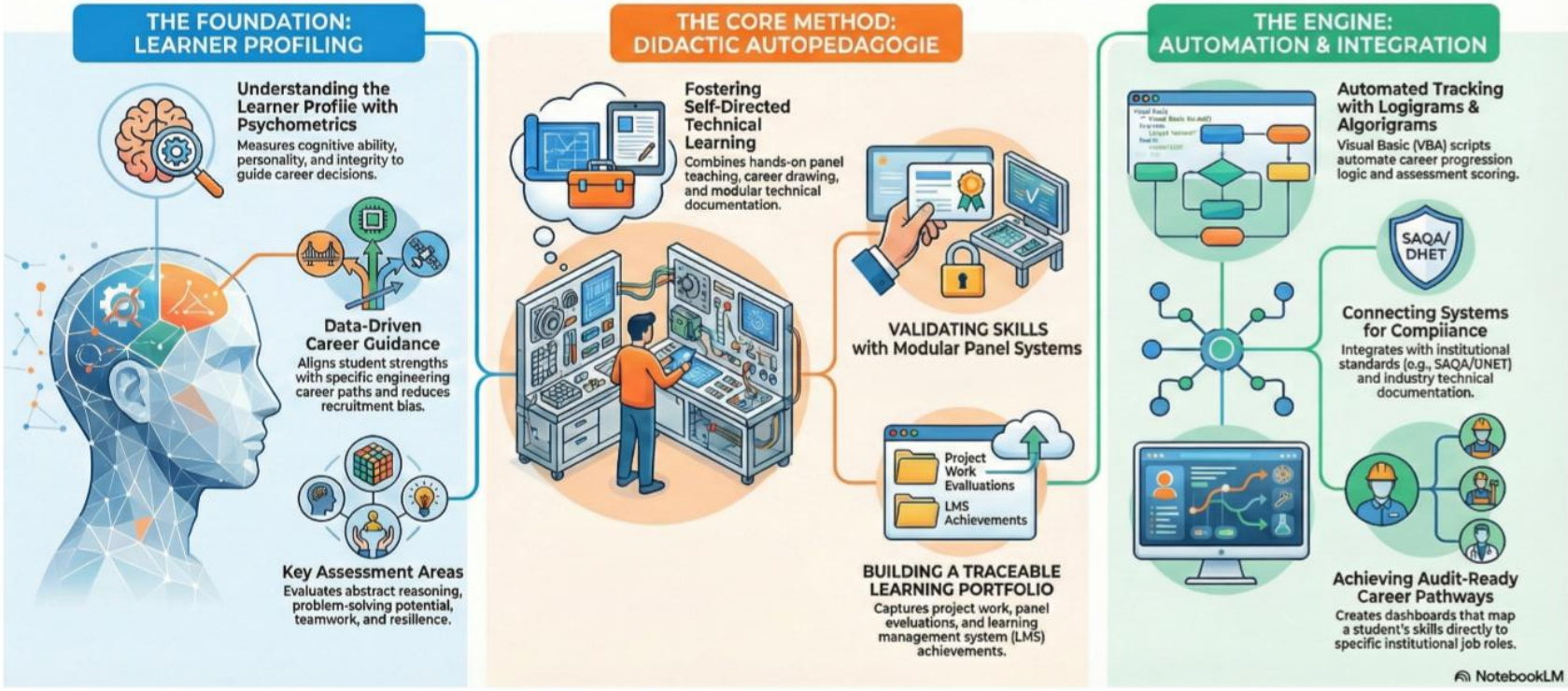

The User Profile: Tshingombe's Integrated Career Engine
IDENTITY
Tshingombe Tshitadi
Detective Inspector
Employee #23456788
Verified via BlockMark
CREDENTIALS
N Diploma Certificate
SAQA NQF Level 3 (Electrical Engineering)
Permit Award
COMPETENCIES
Control Panel Wiring
PLC
PLC Logic
Fault Finding
INTEGRATION
Microsoft Learn
Azure DevOps
GitHub
NotebookLM

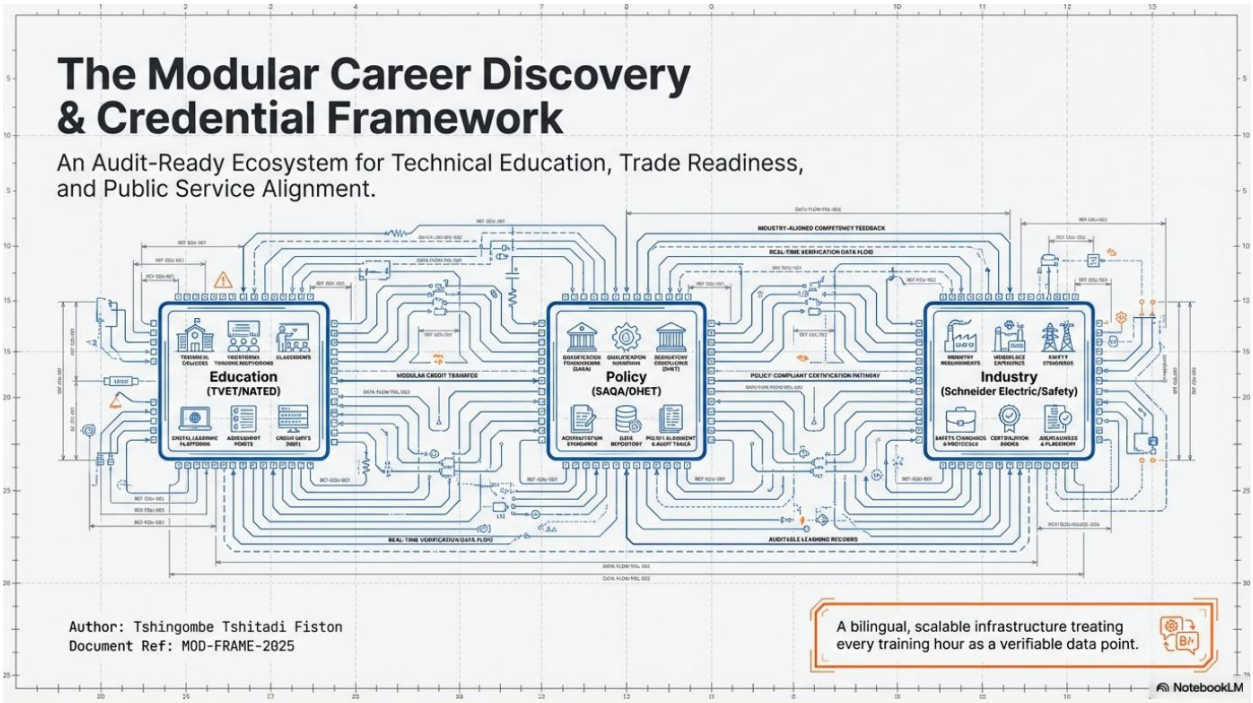

A Connected Ecosystem: Interoperability & Tech Stack
The Unified Mastery Engine acts as the central hub, seamlessly integrating disparate platforms into a single, coherent tech stack for comprehensive professional growth and engineering workflows.
Gamified learning badges
CI/CD pipelines
JetBrains Mono
Unified Mastery Engine
Microsoft Learn
Verified learning paths
Engineering & AI development

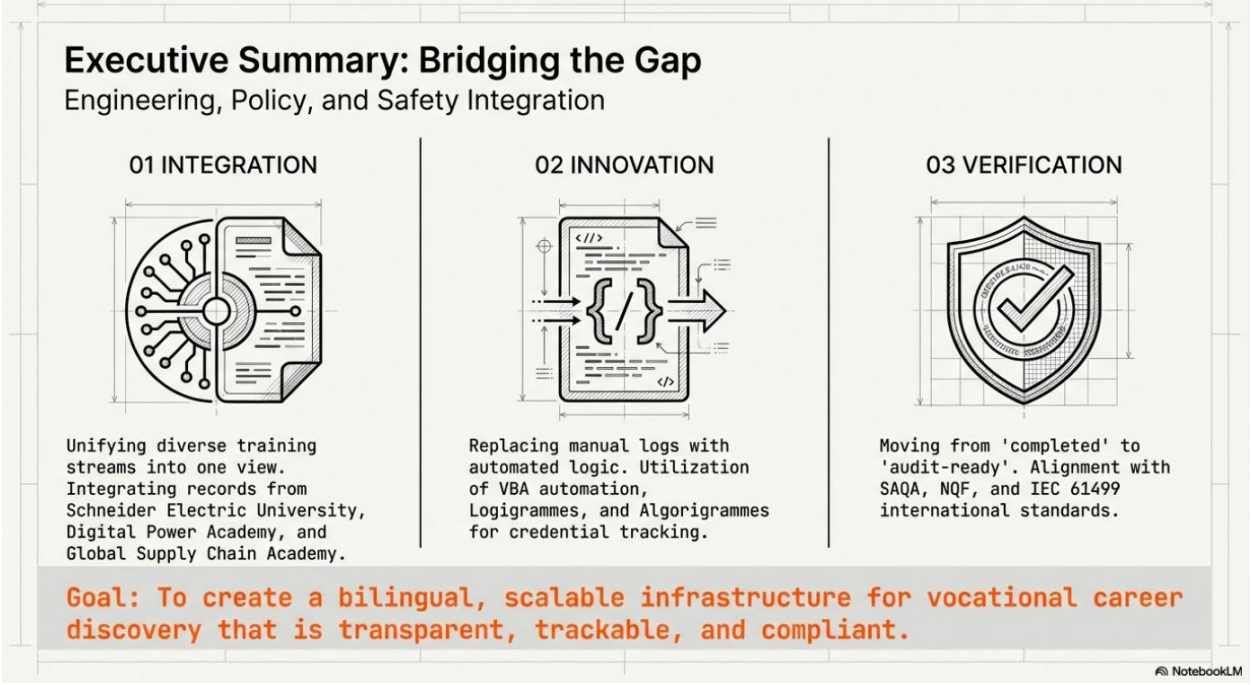
182 mm
The Professional's Lifelong Ledger
2 mm
2 mm
NQF
Level 3
JetBrains Mono
Project:
UniTrain
JetBrains Mono
Credential:
BlockMark
JetBrains Mono
Patent:
Filed
JetBrains Mono
Role:
Detective
Inspector
JetBrains Mono
Building the architecture for verifiable human potential.

A Blueprint for Engineering Career Readiness

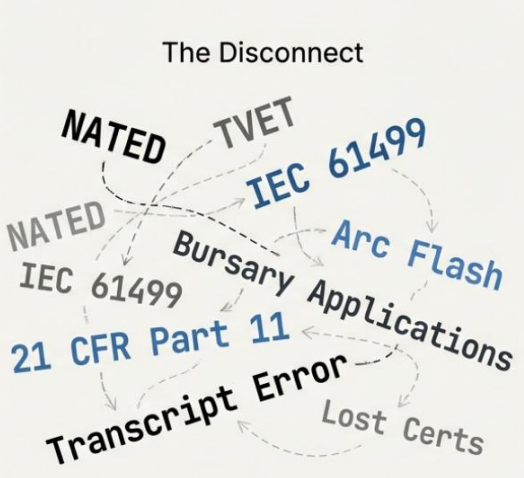
This framework **integrates self-directed learning (autopedagogie)**, psychometric profiling, and panel-based teaching for engineering studies. It uses Visual Basic automation (logigrams) to create a traceable, credential-linked system for career development and public service readiness.


THE FOUNDATION: LEARNER PROFILING
Understanding the Learner Profile with Psychometrics
Measures cognitive ability, personality, and integrity to guide career decisions.
Data-Driven Career Guidance
Aligns student strengths with specific engineering career paths and reduces recruitment bias.
Key Assessment Areas
Evaluates abstract reasoning, problem-solving potential, teamwork, and resilience.
THE CORE METHOD: DIDACTIC AUTOPEDAGOGIE
Fostering Self-Directed Technical Learning
Combines hands-on panel teaching, career drawing, and modular technical documentation.
VALIDATING SKILLS with Modular Panel Systems
Project Work Evaluations
LMS Achievements
BUILDING A TRACEABLE LEARNING PORTFOLIO
Captures project work, panel evaluations, and learning management system (LMS) achievements.
THE ENGINE: AUTOMATION & INTEGRATION
Automated Tracking with Logigrams & Algorigrams
Visual Basic (VBA) scripts automate career progression logic and assessment scoring.
SAQA/ DHET
Connecting Systems for Compliance
Integrates with institutional standards (e.g., SAQA/UNET) and industry technical documentation.
Achieving Audit-Ready Career Pathways
Creates dashboards that map a student's skills directly to specific institutional job roles.
NotebookLM


The Modular Career Discovery & Credential Framework
An Audit-Ready Ecosystem for Technical Education, Trade Readiness, and Public Service Alignment.
Education (TVET/NATED)
Policy (SAQA/QHET)
Industry (Schneider Electric/Safety)
Author: Tshingombe Tshitadi Fiston
Document Ref: MOD-FRAME-2025
A bilingual, scalable infrastructure treating every training hour as a verifiable data point.
NotebookLM


Executive Summary: Bridging the Gap
Engineering, Policy, and Safety Integration
01 INTEGRATION
Unifying diverse training streams into one view. Integrating records from Schneider Electric University, Digital Power Academy, and Global Supply Chain Academy.
02 INNOVATION
Replacing manual logs with automated logic. Utilization of VBA automation, Logigrammes, and Algorigrammes for credential tracking.
03 VERIFICATION
Moving from 'completed' to 'audit-ready'. Alignment with SAQA, NQF, and IEC 61499 international standards.
Goal: To create a bilingual, scalable infrastructure for vocational career discovery that is transparent, trackable, and compliant.
NotebookLM

The Challenge of Fragmented Vocational Data



1. Disconnect

The gap between vocational training (TVET/NATED) and industry-specific certification (Schneider/Modicon).

2. Auditability

Legacy systems lack 'Audit-Readiness.' Manual transcripts are prone to error and hard to verify against government bills.

3. Policy Misalignment

Difficulty aligning international technical standards (like IEC 61499) with local South African policy (SAQA/NQF/DHET).

*"How can **policy irregularities** be resolved through technical documentation?"*

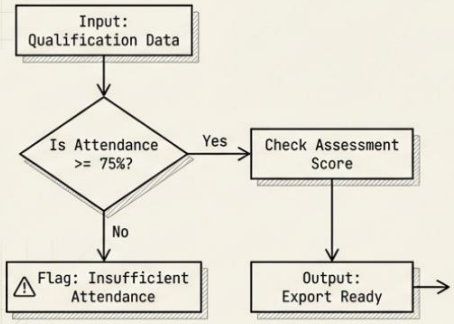
(Source: FBIP Concept Note)

NotebookLM

The Logic Engine: Logigrammes and Algorigrammes

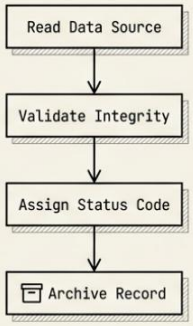
Transforming static training data into dynamic, actionable intelligence.

THE LOGIGRAMME (Decision Logic)



Decision-based flow logic for curriculum, attendance, and credential rules.

THE ALGORIGRAMME (Procedural Logic)



Step-by-step procedural logic for data validation and export workflows.

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Automation as Infrastructure

The `GenerateAuditSheet()` script automates compliance logs, tracking cost, status, and SAQA alignment instantly, eliminating manual administrative error.

```
Sub GenerateAuditSheet()
    Dim ws As Worksheet
    Set ws = ThisWorkbook.Sheets("AuditLog")

    ' Automated Cost & Amendment Tracking
    ws.Cells(2, 5).Formula = "=C2+D2"

    ' Real-time Status Indicators
    ws.Cells(2, 6).Value = "Pending Review"

    ' Algorithmic Archival Logic
    If exportStatus = "Eligible" Then
        Call ExportToArchive
    End If
End Sub
```

→ Automates cost calculations.

→ Instant status updates.

→ Automated archival logic.

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Proof of Concept: The Pilot Data Ecosystem

142 Total Active Modules	**12.2** Aggregate Training Hours
R0.00 Cost (Leveraging Open Access)	English, Portuguese, German, French, Spanish

1	Schneider Electric University	Domain: Energy Management
2	Digital Power Academy	Domain: Energy Management
3	Global Supply Chain Academy	Domain: EcoStruxure Panel Server
4	Digital Factory	Domain: Advanced Electrical Safety
		Domain: Modicon Switches

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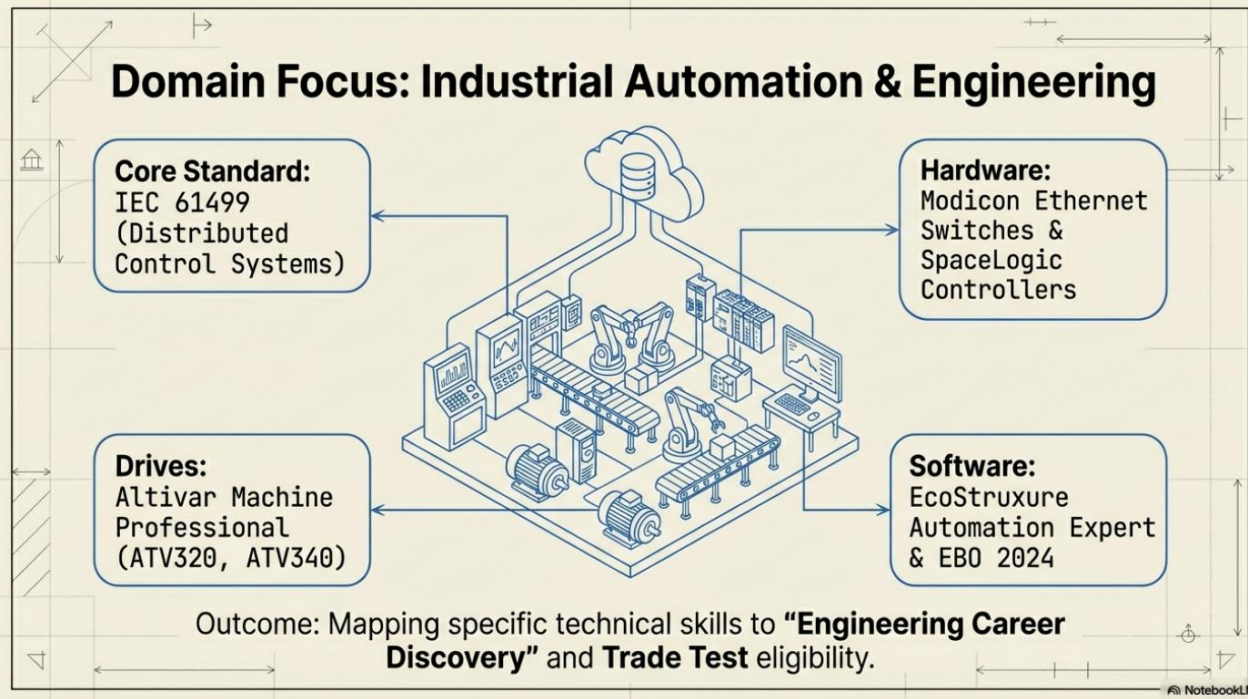
Domain Focus: Industrial Automation & Engineering
Core Standard: IEC 61499 (Distributed Control Systems)
Hardware: Modicon Ethernet Switches & SpaceLogic Controllers
Drives: Altivar Machine Professional (ATV320, ATV340)
Software: EcoStruxure Automation Expert & EBO 2024
Outcome: Mapping specific technical skills to "Engineering Career Discovery" and Trade Test eligibility.
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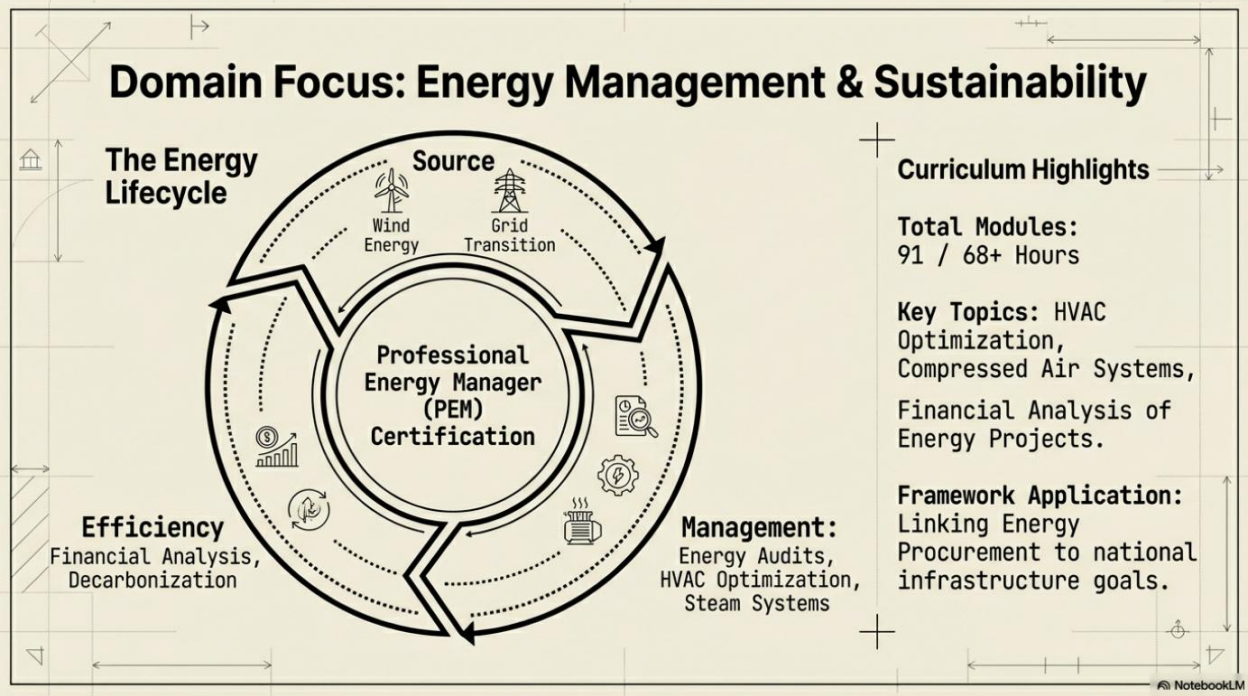
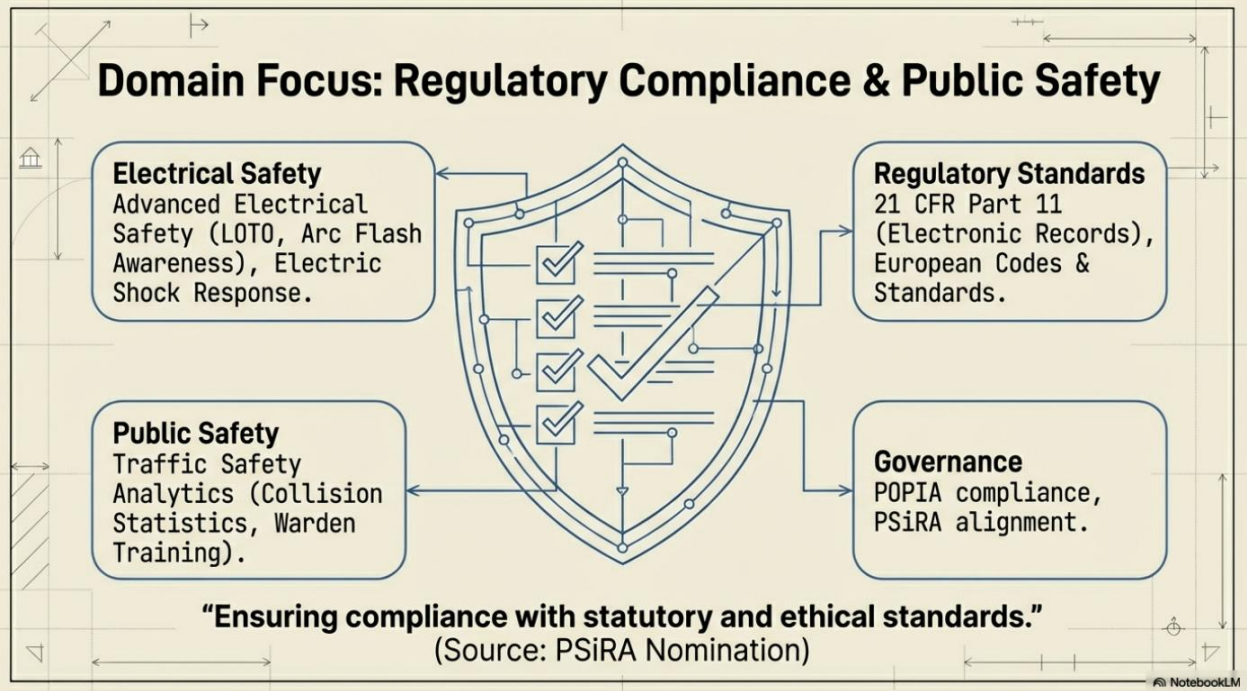
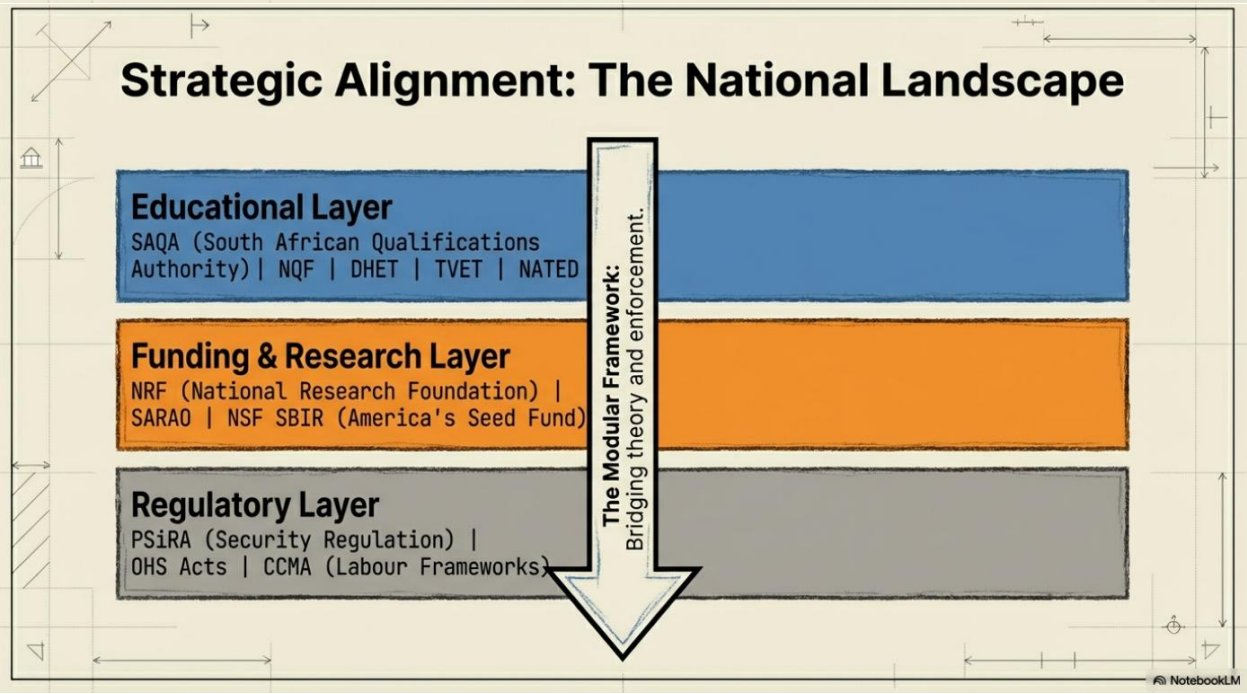
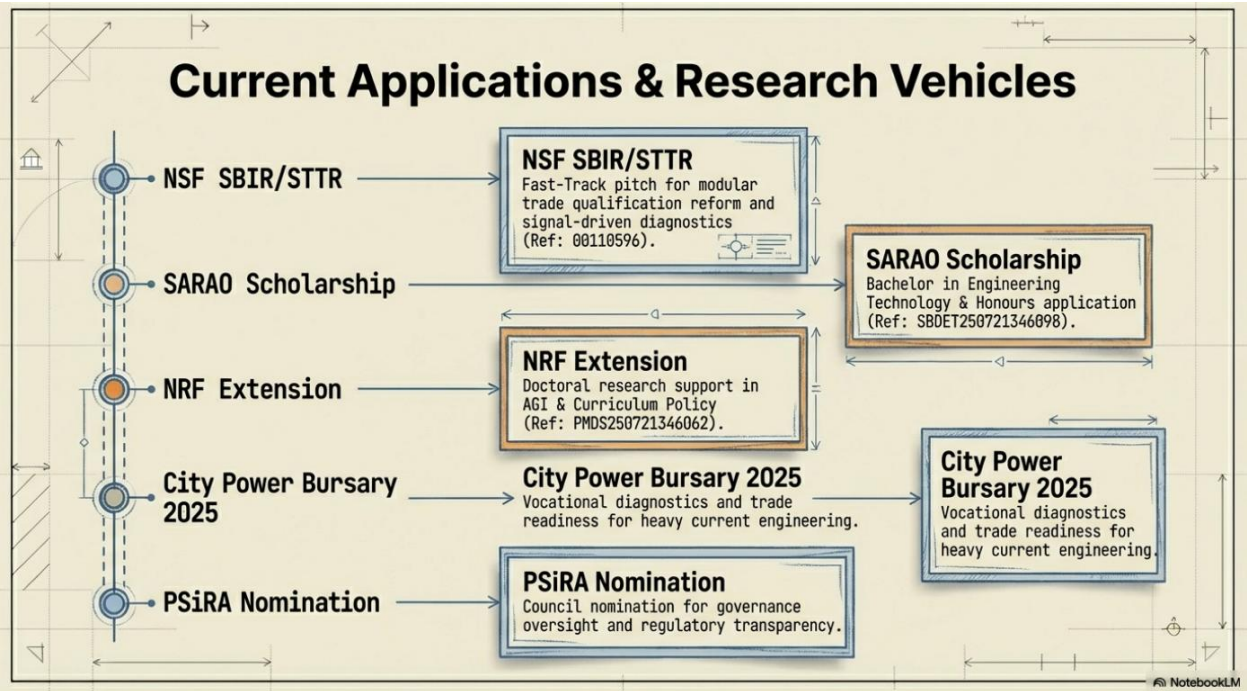
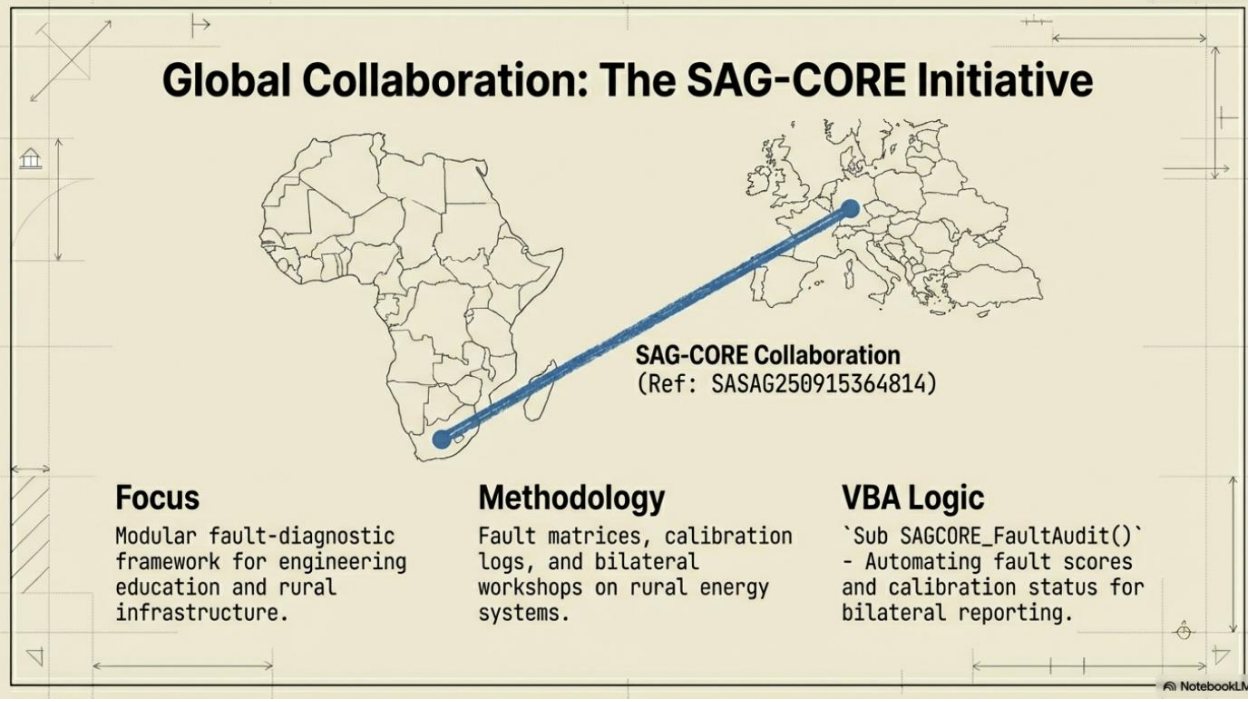
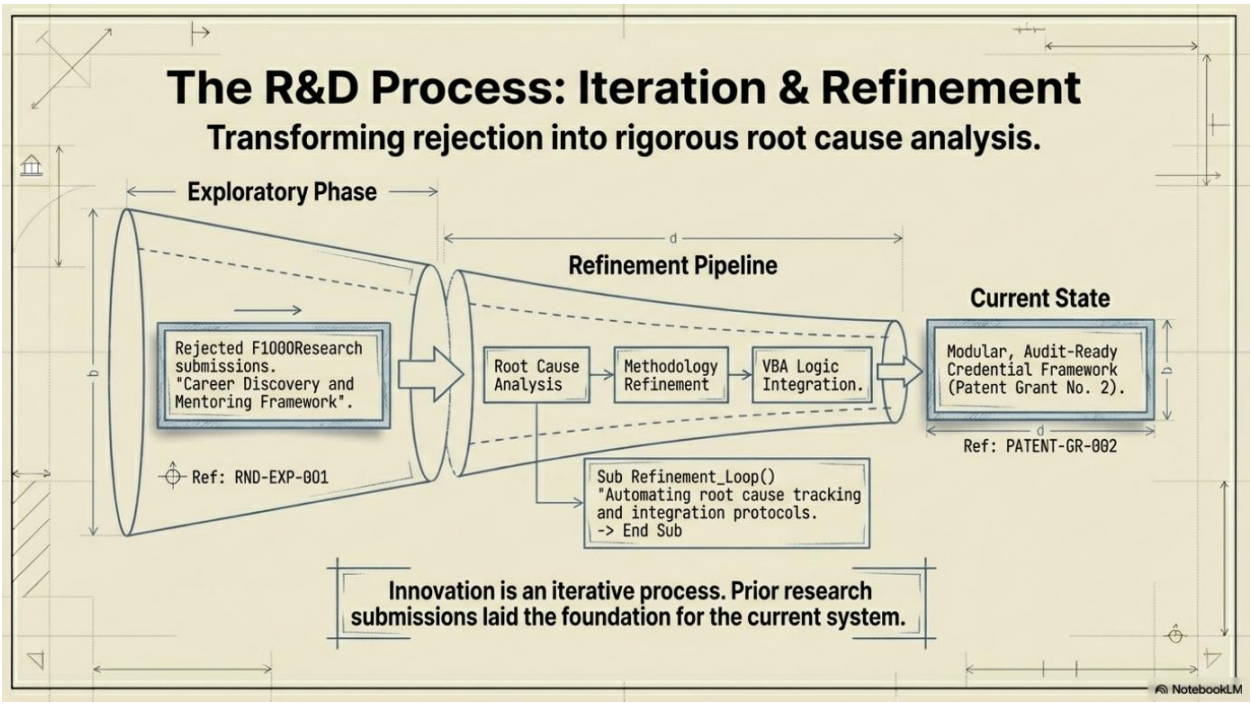

Domain Focus: Energy Management & Sustainability
The Energy Lifecycle
Source
Wind Energy
Grid Transition
Professional Energy Manager (PEM) Certification
Efficiency
Financial Analysis, Decarbonization
Management:
Energy Audits, HVAC Optimization, Steam Systems
Curriculum Highlights
Total Modules: 91 / 68+ Hours
Key Topics: HVAC Optimization, Compressed Air Systems, Financial Analysis of Energy Projects.
Framework Application: Linking Energy Procurement to national infrastructure goals.
NotebookLM


Domain Focus: Regulatory Compliance & Public Safety
Electrical Safety
Advanced Electrical Safety (LOTO, Arc Flash Awareness), Electric Shock Response.
Regulatory Standards
21 CFR Part 11 (Electronic Records), European Codes & Standards.
Public Safety
Traffic Safety Analytics (Collision Statistics, Warden Training).
Governance
POPIA compliance, PSiRA alignment.
"Ensuring compliance with statutory and ethical standards."
(Source: PSiRA Nomination)
NotebookLM


Strategic Alignment: The National Landscape
Educational Layer
SAQA (South African Qualifications Authority) | NQF | DHET | TVET | NATED
Funding & Research Layer
NRF (National Research Foundation) | SARAO | NSF SBIR (America's Seed Fund)
Regulatory Layer
PSiRA (Security Regulation) | OHS Acts | CCMA (Labour Frameworks)
The Modular Framework:
Bridging theory and enforcement.
NotebookLM


Current Applications & Research Vehicles
NSF SBIR/STTR
SARAO Scholarship
NRF Extension
City Power Bursary 2025
PSiRA Nomination
NSF SBIR/STTR
Fast-Track pitch for modular trade qualification reform and signal-driven diagnostics (Ref: 00110596).
SARAO Scholarship
Bachelor in Engineering Technology & Honours application (Ref: SBDET250721346098).
NRF Extension
Doctoral research support in AGI & Curriculum Policy (Ref: PMDS250721346062).
City Power Bursary 2025
Vocational diagnostics and trade readiness for heavy current engineering.
City Power Bursary 2025
Vocational diagnostics and trade readiness for heavy current engineering.
PSiRA Nomination
Council nomination for governance oversight and regulatory transparency.
NotebookLM


Global Collaboration: The SAG-CORE Initiative
SAG-CORE Collaboration
(Ref: SASAG250915364814)
Focus
Modular fault-diagnostic framework for engineering education and rural infrastructure.
Methodology
Fault matrices, calibration logs, and bilateral workshops on rural energy systems.
VBA Logic
`Sub SAGCORE_FaultAudit()` - Automating fault scores and calibration status for bilateral reporting.
NotebookLM


The R&D Process: Iteration & Refinement
Transforming rejection into rigorous root cause analysis.
Exploratory Phase
Refinement Pipeline
Current State
Rejected F1000Research submissions. "Career Discovery and Mentoring Framework".
Root Cause Analysis
Methodology Refinement
VBA Logic Integration.
Modular, Audit-Ready Credential Framework (Patent Grant No. 2).
Ref: RND-EXP-001
Ref: PATENT-GR-002
Sub Refinement_Loop()
"Automating root cause tracking and integration protocols.
-> End Sub
Innovation is an iterative process. Prior research submissions laid the foundation for the current system.
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Future Roadmap & Implementation

Short Term	Completion of EBO 2024 & PEM Certification.
Medium Term	Pilot VBA Audit Tool in TVET context. Secure NRF/SARAO Funding.
Long Term	National Implementation of Career Discovery Framework across SA & DRC.

Goal: To democratize technical education through a transparent, automated, and bilingual infrastructure.

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Preserving Legacy, Building the Future

The Integrated System
JetBrains Mono

- **Validated:** 142+ Modules tracked and verified.
- **Automated:** VBA-driven compliance and cost tracking.
- **Aligned:** Mapped to SAQA, NQF, and International Standards.

Target details to state

"A visionary integration of engineering, labour policy, and credential transparency to scaffold a scalable, audit-ready infrastructure for Africa."

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A Modular Framework for Education & Credentialing

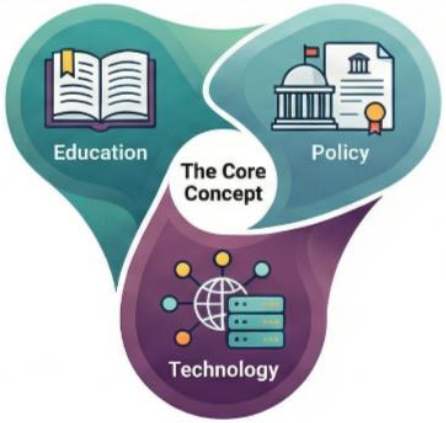
Modular and Scalable by Design

The framework is built for bilingual use and supports cross-border credentialing.

The Core Concept

Integrates Education, Policy, and Technology

Connects vocational training with IT systems and national qualification standards (SAQA/NQF).



The Technical Engine

The Dual-Logic Engine

Algorigramme

Step-by-step procedural logic for data validation and workflows.

Logigramme

Decision-based flow logic for curriculum and credential rules.

Automated Credential Audits via Visual Basic

VBA code automates eligibility checks for attendance, qualifications, and policy compliance.

Key Applications

Trade Test Preparation

Digital Credential Tracking

Audit-Ready Documentation

Managed via Integrated Platforms

Utilizes common platforms like LMS, GitLab, and Archive.org for system management.

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